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CAMERA CRAFT

A Photographic Monthly

Edited by
H. D'ARCY POWER, M. D.
EDGAR FELLOES

VOLUME XXIX

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CAMERA CRAFT



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A Photographic Monthly

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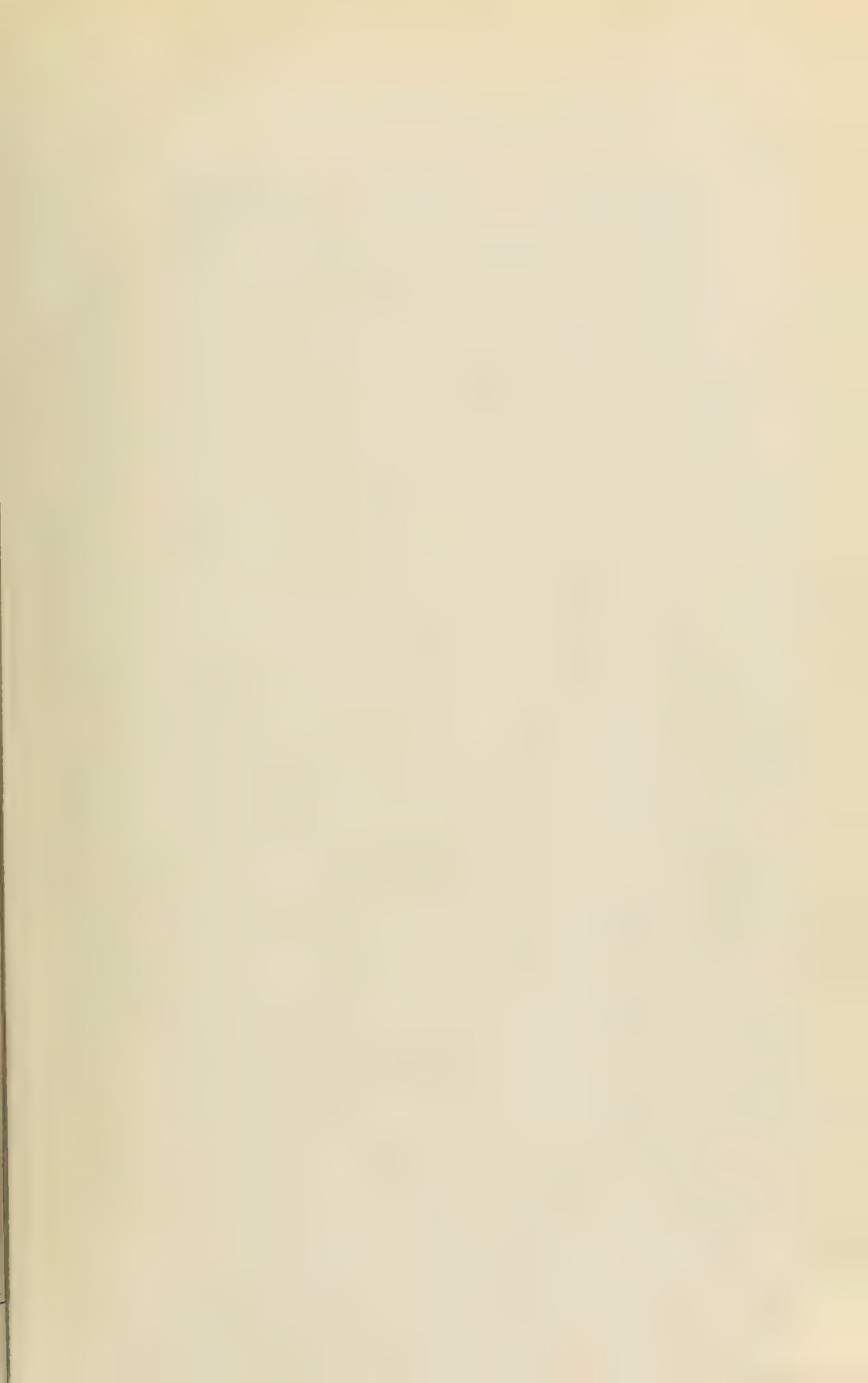
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sincere thanks to my
many friends for their most
liberal patronage during the
past year and to wish all a
very Merry Christmas and a
Happy and Prosperous New
Year.

Henry G. de Roos

President

Henry G. de Roos, Inc.

San Francisco





SYMPATHY
(London Salon)
By PERCY NEYMANN, Ph. D.

CAMERA



CRAFT

A PHOTOGRAPHIC MONTHLY

H. D'ARCY POWER, M. D.
Editor-in-Chief
CLAUS SPRECKELS BLDG.

SAN FRANCISCO

EDGAR FELLOES,
Associate Editor
CALIFORNIA

VOL. XXIX

JANUARY, 1922

No. 1

Laws of Art Versus Individual Taste

By Sigismund Blumann



Speaking of music, the lover of Jazz has been heard too often saying, "I don't know anything about music but I know what I like." With all due respect to the otherwise nobler animal who speaks thus, let it be considered that the hog knows nothing of fine eating but he, too, knows what he likes and it is swill. Individual taste is frequently confounded with originality. There is no connection. A hundred individuals are more likely to enjoy what is inferior to one whose trained senses and judgment qualify him to prefer the good.

Adages and epigrams have been made in good faith which seem to serve whatever purpose. The devil has quoted scripture, "Rules are made for the common mind: Great minds are above them." Are they indeed! "Genius knows no laws." Fly not like the eagle, little mind, or you may be shot for a goose. Fads are the ephemeral attempts to escape rules and they last for a day. But the arts of Greece have given Rodin his schooling. Praxiteles is still the master.

The rules of Art are not made arbitrarily and intended to curb individuality. They are arrived at by experience, and mature, patient study and consideration. They are based on laws of nature: Basic and fundamental. Hogarth's line of beauty is not a formula but a psychological phenomenon. Curves please because men have been created with a sense

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of ease and enjoy the smooth traverse of round lines and resent the violence of angles. Balance (not mathematical symmetry) is a quality within us not established by the will of man.

So in photography it behooves us to study well every law of Art, to master every application thereof, to adapt each to our form of expression, and if God has been so good as to make us great enough, to add to these laws with demonstrations of our own.

Unlike religion, which hath many creeds, Art has but one, "To hold the mirror up to Nature," and while

"To him who in the love of Nature
Holds communion with her visible forms
She speaks a various language,"

we must never forget that it is Nature which speaks and not our own exalted self that makes the thunder roar, or the streams purl, or the breezes whisper.

The human form divine is divine when it conveys to us the beauty Divinity put upon it. When it is merely a naked body it is only carnal, ugly, obscene and calling it a Study in the Nude cannot make it an exemplar of Art.

When distorted trees and curdled skies manufactured by reticulated films and cotton batting are smudged on paper, we may say a new Art has arrived but there is no new Art. Though the bodies of men change and earth itself passes through its mutations, the primal force, the unit of origin, the first creative edict that started the universe shall be as it was at the beginning. And we who worship Art and love her, not as a pose or an affectation, but deeply and reverently, shall find we are doing something very near to worshipping the Supreme Power that made all things according to law.—Reprinted by Permission American Annual of Photography, 1922.



PICTURES

The Old Sonoma Mission

By D. E. Bennett



With Illustrations by the Author

Dropping in on the genial Editor of Camera Craft to tell him how much I was enjoying the more recent numbers of the magazine, I showed him a few of the pictures that I had taken in and around the old historic town of Sonoma. Before I got out of the office he had a promise of "a story" and the pictures.

The Old Missions of California have always made a special appeal to me, from a pictorial, as well as an historical standpoint. They come down from an age of romance and adventure that is the fascinating story of the beginnings of civilization on this western coast.

It has been my good fortune to visit nearly all the twenty-one missions established by those Spanish Franciscan Monks under that good and heroic leader, Father Junipero Serra, who, though suffering from a crippled leg,

MISSION "S. FRANCISCO DE SOLOMA."



The Mission Bell

A "Close-up" of the Mission Building

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tramped up and down the State over what was called "The El Camino Real," establishing in favored places missions, and gathering in the Indians, creating colonies which made wonderful progress in all the arts of that day. The



TWO VIEWS OF GENERAL VALLEJOS FORT, S. W. SONOMA.

missionaries and their Indian neophytes built well. Their material was only adobe clay, but these buildings, constructed of sun-baked mud, still stand, a monument to the zeal and fervor of their builders and today are the most prized historical possessions of the State, Catholic and Protestant alike holding them in reverence.

These missions were being built on the western shore at the time that Washington was leading his armies on the shores of the Atlantic. 1775 was the date of the founding of the San Diego Mission.

The Sonoma Mission has a history differing from all the others. It was born out of due time. Mission prosperity had reached its zenith and was on the decline. Things had not gone well at San Francisco. The ravages of the plague had been great, the land was unfertile, and the climate

THE OLD SONOMA MISSION

inhospitable. Sickness and destitution reigned at the Mission Dolores. Father Jose Altimira was in charge, a man fired with missionary zeal. He appealed to the new Mexican Governor Argüello for permission to cross

PART OF OLD SPANISH BARRACKS, FRONTING PLAZA.



Bear Flag Monument

Inscription on Bear Flag Monument

the bay to the north and select a more promising site. Father Serra objected to the abandonment of the San Francisco Mission. The Governor was favorable to the project, as the Russians were coming down from the north and establishing trading stations. Both Father Serra and Governor Argüello had their way. San Francisco Mission was not abandoned, but the padre, Father Altimira, crossed the bay, skirted Mt. Tamalpais through virgin forests of redwood and oaks, and came at last to a moon-shaped, mountain belted valley called by the Indians Sonoma, "the valley of the moon." Here on its northern borders, under the shadow of the mountains and among its wide stretched oaks Father Altimira planted the Cross and established what was to be the last of the missions, calling it "The Mission San Francisco de Soloma." This was on July 4th, 1823, a rude building of rough boards being hastily erected. The Russian settlement to the west, on Bodega Bay, to show their friendly intentions, presented the new establishment with its first furnishings.

THE OLD SONOMA MISSION

Under the fostering care of Father Altimira, everything flourished. During the eleven years of the Mission's active life there had been 1315 baptisms, 278 marriages and 651 deaths. The largest population was in 1832, when 996 people lived on the mission grounds. In 1833 these people had 4849 cattle, 1148 horses and 7114 sheep.

Then came the period of the secularization, the mission establishments were broken up and the Indians scattered. It would appear that the old Mission building which now stands was not completed during the days of mission activities. From the plaza the little knolls of clay had been made into adobe brick and the walls of the Mission were some six feet high when General Vallejo proclaimed the secularization decree he had received from the Supreme Government in the City of Mexico. Everything was at a standstill. The General realized it was not well for the colony to be without a church building, so he ordered his soldiers to take the work in hand. From the plaza was brought the great piles of sun-baked adobe and in three days the building was completed, erected on the plans of the padres who had carried on the Mission established eleven years previously.

The picture of the Mission was made with a 3A camera of the focusing type, equipped with an F-7.7 lens. The close-up view was taken to eliminate the electric light poles and telephone wires which were entirely out of place in a picture of this kind. The other picture shows the Mission established in its completeness. Such an establishment not only included a church for worship, but buildings in which the manual arts were practiced. Carpenter's shop, blacksmithing, weaving, tanning, bakery and all the work that went to make up a community life. Both photographs were made from tripod, stop F-11 and 1/25th second exposure.

The picture of the old bell has more than common interest. It was cast in Spain, hung on the Mission grounds in 1829; around its rim runs this inscription, "Mission S. Francisco de Soloma, 1829." During the days of Mission decay it found its way into the Sutro Collection in San Francisco, and when the Native Sons and Daughters of the Golden West took over the preservation of this old Mission landmark, it was restored to its rightful place by the Sutro heirs.

Part of the old barracks fronting the plaza still stands. This picture was full of difficulties, bright sun and deep shadows under the porches, F-32 and a fourth of a second exposure was given.

Sonoma was the home of the Bear Flag Republic. It was here on June 14, 1846, the first attempt at wresting California from Mexican rule was made by what is known as the Bear Flag Party. The two pictures tell the tale. The monument that now stands to mark the spot is that of an argonaut cast in bronze, holding aloft a Bear Flag. The pedestal is an immense granite boulder. The rock itself is historic. It was used by General Vallejo as it stood in the hills back of the town as "The Enemy" against which he maneuvered his soldiers. Many and many a time the sweating Spanish soldiers dragged their three small pieces of artillery to

THE OLD SONOMA MISSION



Original Adobe Juarez Grant, Napa

Surviving Daughter, Don Juarez

the top of the knoll back of the Mission, and shot round after round of solid shot at the conspicuous sentinel which stood in bold relief against the mountain side across the narrow valley, and they occasionally hit the mark. This rock was removed from its mountain home and made the support for this monument to The Bear Flag Republic. The tablet tells its own story. Both pictures were time exposures, the monument at stop F-16 was given one-fourth second exposure, and the tablet at F-64 received one second's time.

The old adobe fort, another relic of these early days. Built by General Vallejo about 1830, for the dual purpose of forming a barrier against Russian encroachment from the north, and to serve as a base of operations against the hostile Indians which swarmed the mountains.

There are many places of historic and photographic interest around Sonoma. The old "Blue Wing" tavern, much frequented by the picturesque Spanish outlaw, Joaquin Murietta. The old home of General Vallejo. The old adobe jail.

To the east is another ruin. This adobe was built by Cayetano Juarez, an under officer of General Vallejo. Juarez, on account of a serious breach of discipline, was sentenced to be shot, the General later relented. Juarez was given a section of land in Napa with the proviso that he marry and set up an establishment on this land. This he did, selecting for his wife a young Mexican girl.

My picture shows what is left of the old adobe home. In the new adobe, now also a ruin, still lives one of the daughters of Don Juarez, and a picture of her is here presented, though this old lady asked me what I wanted with the photograph of such an old woman. The senora told me she was christened in the old Mission at Sonoma, and bears well her age of 82 years. The old adobe wall serves as a background in this portrait.

OUR WILD FLOWERS

Kindly Contributed by Our Readers

XIV. YARROW

Yarrow, a plant so common that hardly anyone gives it a second look, yet it will stand that second look, and in fact several looks before one will appreciate its delicate beauty. To the glance the flower represents but a flat white blotch, but as the picture shows, this is made up of many minute blossoms, each alone hardly noticeable, but grouped together they make quite a grand display.

The plant has long been well known by herbalists, and was formerly in high repute for its many virtues. The leaves steeped in hot water are still considered a very healing application for cuts and bruises.

The proper name is *Achillea Millefolium*, Achilles, because that great hero of the Trojan war was supposed to have been the first to discovered its virtues.

In the spring the plants first develop a flat lying cluster of feathery leaves, later sending up its tall flower stalk. Growing freely in dry places, the plant may be used for lawn making, in fact, makes a fine turf, altho it must be cut frequently to prevent the sending up of flower stems, and to keep the strength of the root in the leaves. When grown this way I have heard it called Lippitt, but have been unable to find the origin of this name.—A. E. Davies.



Amateur Portraiture

By H. Syril Dusenbery



With Illustrations by the Author

Every camera enthusiast has at one time or another aspired to take portraits. Of course he did not possess an imposing studio-camera or a room with a large glaring skylight, so he gave it up as a bad job. Portraiture is by no means easy with the limited equipment of the average hand camera owner, but never the less this attractive branch of photography is worthy of a fair trial.

First, let us consider the camera. Any camera will do, but naturally some cameras are better adopted for portraiture than others. A camera with equipment to enable the use of plates is to be given the preference. Most of the present day popular size cameras and Kodaks have special combination backs. This combination back, as it is called, replaces the regular back and is equipped with a slide to receive the plate-holders. One of the big features of this equipment is that you can do your focusing on a ground glass. This insures absolute definition. If, however, you have no



A Pleasing Example of a Full-Face Pose

A Three-Quarter View, Facing a Single Window

CAMERA CRAFT

such equipment, you can take portraits with your film camera just as well. If it has a focusing scale, be sure and measure accurately the exact distances from the lens to the principle part of the subject. With a fixed focus camera, that is one without a focusing scale, see that the subject is at least six, preferably eight feet, away from the camera. It is not advisable to guess at the distance, measure it. In addition to the camera you will need a tripod or some other suitable support. You will find that practically all of your portraits will require time-exposures and a good firm support is necessary. There is also on the market a "Portrait Attachment," which is a supplemental lens to be used in addition to the regular lens on your camera. The purpose of this attachment is to allow you to place the camera nearer to the subject than would otherwise be possible and thus obtain a larger image on the film. Full instructions for focusing with this device accompany each attachment.

The next thing to consider is the place to take the portrait. While any room will do, some have the windows so arranged that they are more desirable than others. Select a room with windows on one side only. If other windows are present, the shades must be drawn. If the shades are so thin that considerable light is permitted to pass through them, it is recommended that a blanket be hung over them. Do not select windows admitting the direct sunlight. You will find that sunlight produces harsh and contrasty undesirable pictures. In general, soft diffusing lighting brings out the natural roundness of the features, while harsh lighting flattens the roundness and tends to emphasize the facial blemishes. The light from the window will illuminate one side of the face only. To prevent the opposite side from appearing too dark, a reflector is used. A white sheet or a large piece of white cardboard will serve as a reflector. The reflector is to be so placed that the light from the window is reflected on to the dark side of the subject. The exact position can be determined by actual experiment. Last, but not least, is background. The simplest and best appearing background is a plain black one. Any dark piece of cloth, or a very dark blanket will do. It can be suspended by cords from the picture moulding or from any other suitable support. It should be as free from wrinkles as possible and should be placed at least three or four feet back of the subject. This will put the background out of focus and give a soft effect suggestive of distance. The subject will stand out from the background. If the subject is close to the background the heavy weave of the cloth will show which will detract from the portrait. The angle at which the background is hung also deserves attention. It should be such that the light striking the background is not reflected towards the camera, but away from the camera.

We are now ready to take the picture. With the subject, the background, the reflector, and the camera all in place we are ready. Now comes the hardest point of all, the matter of exposure. There is no better way to determine the exposure than by trial. You may spoil a few pictures at first, ultimately you will discover the correct exposure for the conditions under

AMATEUR PORTRAITURE



A Smile With Eyes Towards Camera
Suggests Animation

Suggestive of Meekness
The same subject served for both pictures

which you work. The flood of exposure meters on the market will give you suggestions and ideas, but the final determination will come by trial. With your camera at the largest stop, take a time exposure of one second, then another of two seconds, and a third say at four seconds and see which come out the best. If all are sadly underexposed, double the exposure, try eight seconds. You will very quickly learn which gives the best results. No theoretical device will give you the amount of time to expose more rapidly than three or four trial exposures.

After the taking, comes the finishing. I will assume that the reader is familiar with the ordinary processes of developing and printing. Of course you are going to do these yourself. To give this work out to some one else deprives you of half the pleasure in photography. Those of us who are fortunate enough to possess enlarging apparatus will find the same very valuable in portrait work. It will enable you to enlarge the head to the desired size while the undesirable portions can be trimmed away. All of the illustrations accompanying these articles are enlargements. The original in many cases showed the full figure while the finished portrait shows the head only. The slow professional grade of papers are to be recommended in finishing this type of work as it is only these papers that show the full depth and roundness of the features. The matte surfaces are the most popular. Glossy or semi-glossy papers tend to suggest cheapness and crudeness.

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The matter of mounting must be left to the reader's taste. Portraits can be mounted in folders, stiff board mounts, or in a variety of other ways. I would like to bring to your attention at this point the illustration which I



Changing Styles in Hats Are Apt to Destroy an Otherwise Pleasing Portrait

mounted in a folder containing an oval opening. The hand was a very objectionable part of this portrait but the oval matt concealed it completely. Judicious trimming and mounting will thus improve an otherwise displeasing portrait. There is such a variety of folders and mounts on the market today that you should have no trouble whatsoever in finding one suited for your requirements. Many suggestions can be obtained by the inspection of the show windows of professional photographers. Of course a mounted portrait is rather formal, perhaps a little bit too much so for the average camera owner. Small contact portraits are more typical of amateur work and are just as pleasing, and sometimes more so, than formal mounted portraits. Your friends will appreciate more a little contact print well done than a big enlargement in a fancy folder that exaggerates the features.

Perfection is only attainable through experience and practice. Why not get out your camera today and try it out? Home portraiture has a multitude of pleasure in store for you and it will be only a matter of a short time until you will be turning out "expert" portraits of your friends.

AMATEUR PORTRAITURE



AN EXAMPLE OF SUITABLE MOUNTING

This Eliminates the Objectionable Hand Which Seriously Detracts From the Face

PARAGRAPHS PHOTOGRAPHIC

AN EFFECTIVE SAFE LIGHT

Topless ruby or amber bulbs cost about \$1.50 each for 16 candle-power and not liking the carbon lamp on account of the large amount of heat given off, I took a five pound acid bottle of amber color, put several turns of white cotton string around it, saturated the string with alcohol and set it on fire. As soon as the alcohol had burned out, I immediately dipped the bottle in cold water, and the bottle was in two pieces. Then I put an ordinary 20 candle-power lamp in this amber or brown bottle and it serves perfectly as a dark room lamp.

FOR SCRATCHED NEGATIVES

When printing, if you find a negative with a few scratches on the film, just take a "China marking pencil" and fill in the scratches by working across the lines. Then take the ball of your finger and rub off the surplus; you will now have a dandy job, though a temporary one.

Both these hints were contributed by I. C. Adams, Calistoga, Cal.



The Soft-Focus Lens or Diffusing Attachment

By M. C. Williamson
Wollensak Optical Company

A story is told of a studio owner who admired the beautiful enlargements that a competitor's employee was producing. In order to learn his method he hired him and put him to work in his studio.

The studio owner, whom we'll call Jones, said to his assistant, "Watch this man and see how he gets that fuzzy effect." Jones' assistant followed instructions and later that day came out of the dark room with a smile of enlightenment on his countenance.

"How does he do it?" asked Jones.

"Well," answered his assistant, "he sets up his enlarging apparatus in the usual way, takes off the lens cap, then slowly counts '1, 2, 3, kick' and puts the cap back on. On the word 'kick,' he bumps the camera with his foot to make it jiggle."

This happened years and years ago, before the day of the soft-focus lens. Photographers were striving for an indefinable something in their pictures,—they hardly knew what themselves,—and were trying every conceivable method of getting away from sharp, distracting wiriness. All sorts of schemes were tried in an effort to get a pleasing quality of softness. Some printed through glass, others made exposures through chiffon and one ingenious photographer even hit upon the idea of blowing a cloud of smoke in front of his lens when making the exposure.

Photographers were groping in the dark for some method of making pictures as the eye sees, not with every line, wrinkle and detail delineated with unpleasant sharpness, but rather with a subordination of unessential detail.

The soft-focus lens was an inevitable development. Make-shift devices did not give the atmospheric quality that serious workers were striving to obtain. They gave fuzziness, but that was all.

There was much criticism of the work of pioneer pictorialists. This was undoubtedly due in part to the limitations of their equipment. In their efforts to secure a pleasing softness, all definition and detail was destroyed.

With the advent of the soft-focus lens, however, all this was changed. It is characteristic of most of the soft-focus lenses on the market, that while the original detail is not destroyed, it is nevertheless relegated to its proper importance in a picture. The definition is there, but over the sharply defined image a quality of airiness is spread,—some call it "atmospheric effect," and the result of this quality is a pleasing blending of tones and details.

THE SOFT-FOCUS LENS OR DIFFUSING ATTACHMENT

The distinctive effect which the soft-focus lens produces is due to its special construction. Diffusion is obtained in a soft-focus lens by the proper combination of aberrations. Most diffused focus objectives combine a slight degree of spherical and chromatic aberration and it is this combination which serves to give the real diffused quality so desirable.

None of the diffused focus attachments intended to slip over the front of the lens, serve to introduce either spherical or chromatic aberration in the lens with which they are used. They merely cause a confusion of the object rays with the result that the image obtained on the negative is not as sharply defined as ordinarily. The effect that they produce is similar in many respects to the soft-focus effects obtained by various methods before the advent of the especially designed soft-focus lens. They lack, however, the quality which can only be obtained by a correct combination of the aberrations.

The many diffusion attachments on the market today, are very cleverly designed and undoubtedly answer the purpose in many cases where the photographer cannot afford a special lens for soft-focus effects. They are comparatively inexpensive and so can hardly be expected to turn out the same beautiful quality of results as a lens of special construction.

The diffusion attachment is to the soft-focus lens, what the box Brownie is to the higher priced, finely corrected focusing model hand camera. Both the box camera and the diffusing attachments are fool proof and comparatively inexpensive. Both will give good results under certain conditions, but have decided limitations as to their scope of possibilities.

On the other hand, the soft-focus lens will give practically any quality of softness desired from extreme diffusion to sharpness by changing the size of the diaphragm aperture. It is readily controllable and gives as much or as little diffusion as the operator desires. In some types it is convertible. It is possible for the operator using the special soft-focus lens to put his own individuality in his work and secure practically any quality of results he desires. Like the higher priced focusing model hand camera, it requires greater skill in operation, but likewise offers practically unlimited possibilities to the intelligent user.

Both diffused focus lenses and diffusing attachments have their place and neither can be expected to entirely replace the other.





A View Photographer

By Edgar Felloes



With Illustrations by Harry S. Lawton

At the corner of Mission and Third Streets, or to be more definite, at 693 Mission Street, we find on the directory in the hall, H. S. Lawton and nothing more. Of course Mr. Lawton is well known as a photographer, having been in the business twenty-five years, but why not mention your business, Mr. Lawton? Some one has said it pays to advertise, just who that some one was, it is hard to say, but he spoke a world of truth.

Harry S. Lawton is the official photographer of the Western Pacific Railroad Company, and there is nothing in view photography he does not know. He does not indulge in processes, but if anyone desires honest-to-goodness photographs with perfect technique and careful selection of viewpoint, he will find a great choice here.

There are many readers who prefer this style of photograph to any other, the majority of people probably do, and as I looked over some of the varied collections I found myself unconsciously setting aside a little pile of these pictures for those readers of Camera Craft.

Here are four to begin with, but I have others just as good for a future time. These four views were taken in Feather River Canyon, a wonderful spot, made for the photographer. Perhaps I should not call a canyon over a hundred miles long a spot, but I do, because that is one of the things that make the spot wonderful and one will find a wonderful amount of scenery there, as I said, just made for the photographer.

The Western Pacific Railroad traverses the whole of the Feather River Canyon, it enters it at Oroville. It was natural that Mr. Lawton's familiarity with the picturesque places reached by this railroad should bring him to the attention of the moving picture men. It is safe to say that ninety per cent of the film plays made in these parts owe their location to Mr. Lawton. He is a walking encyclopedia of picturesque backgrounds. Having a natural appreciation for the beautiful, a well trained eye and a retentive memory, he has only to be told the kind of scenery required, when he and his railroad will do the rest. It is all so like pressing the button, and as a time saver, he and his railroad, the Western Pacific, can't be beat.

As the showman would say, my first picture is Anita Stewart doing "A Question of Honor" down in the Feather River Canyon. This sounds queer, I admit, but have you not noticed how queer it all appears when you enter a picture show towards the end of a reel, and you find everybody

A VIEW PHOTOGRAPHER

laughing but yourself, you may look hard at the screen and you fail to see what they are laughing at? That is just it, you fail to understand the situation, now I ask what kind of honor compels a young lady to sit on a



ANITA STEWART, IN "A QUESTION OF HONOR"
Scene in Feather River Canyon

pointed rock? Own up you don't understand, and neither do I understand.

"There is too much levity here," as our drawing master used to say, so I will get down to my work. For the benefit of the beginner in photography I wish to point out a quality in this picture which I hope will be remembered. Broadly speaking there are two main planes in this picture, the foreground and the distance. The foreground is sharp focused, the point of interest is there and therefore it is detached. The rocks are honest rocks, they are hard, rocks should be. Would these rocks have looked better with a nice little halo along each ragged edge proclaiming the

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"safety first" slogan? I think not, for there is beauty in truth. It stands to reason if we wish a part of our picture to stand out boldly it must be drawn or be focused with spirit, like this foreground is treated. And to emphasize this beautiful foreground the background or distance is shadowy or soft. By this means the picture has an almost stereoscopic effect because of its relief. Please notice, in the background no strong darks are repeated and you will also notice that the strongest lights are where the strongest blacks are, the one is a bold contrast to the other. There is no finical work, no teasing, no blending, it is honest, it is nature's way.

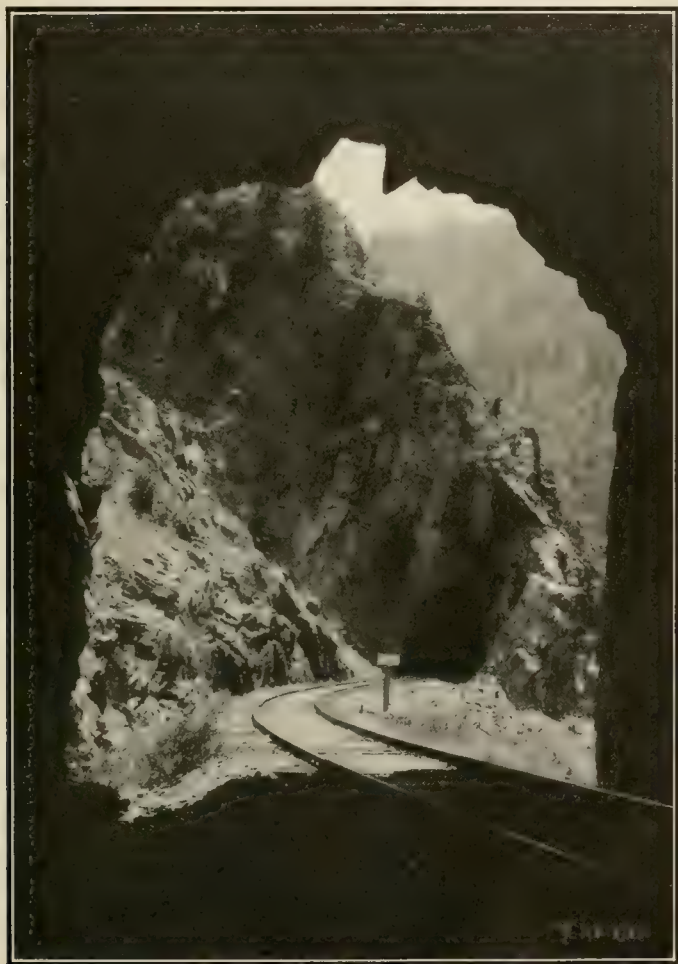
Now study the figure a moment. Miss Stewart is an artist and that is why she did not do what a million would have done. She did not let her legs dangle over the edge of the rock, she did not cup her hands in her lap to hide them, she did not look selfconscious. Instead of assuming these popular poses, this actress disposes her limbs to repeat the slope of the rock, there is harmony in repetition, and note also the feet are not placed parallel and on top of each other, one is drawn backward. Right at the end of that upward sloping rock we have a perpendicular line, her body. This stops the eye from going off the picture, it is good composition. Now the hands: one grasps the edge of the rock, it gives a sense of security, and the other instead of being lumped up on the lap, is displayed, the fingers are spread apart, thus showing that that hand is not a lump.

Still the showman; I draw your attention to picture number two, "Tunnel Portals," on the W. P. R. R., and also a part of this Canyon. This picture should be of especial interest to the photographer. If I remember rightly it is about the severest test in the matter of halation I have seen. You will notice there is bright sunshine outdoors, but there is not the slightest trace of halation around the dark tunnel in which the camera stood. This speaks volumes for the merits of our modern photographic films, for this negative was made on a cut film.

"A Feather River Canyon Waterfall," is also deserving of notice. The time of exposure given this picture was one-fiftieth of a second, though the lens worked at F-6.3, the photographer stopped it down to F-8, and the negative was made on a 5x7 film pack. The tumbling water is excellent, it looks very much as the eye would see it, hence there was no need of greater shutter speed. The reader will also notice the stop used passed plenty of light and we see there was no need of a faster lens here. What do we learn by this?—The following: That if we own an ordinary hand camera with an ordinary anastigmat working at F-7.7, or even a rectilinear lens working at F-8, and we have a shutter capable of the speed of one-fiftieth of a second, we can do practically as good work as far as the exposure goes. I draw the beginner's attention to this point to encourage him to find the capabilities of his photographic outfit. Comparatively few realize what moderate priced cameras are capable of, they frequently desire something that may be beyond their reach, for instance an F-4.5 lens, a focal plane shutter, something really good, they will say. Now these things are really good

A VIEW PHOTOGRAPHER

when you understand them, but let us look into this thing a little. The F-4.5 lens for this particular subject would not be equal to that lens at F-8, because it would lack depth of field, in other words, it would be necessary



"TUNNEL PORTALS," on W. P. R. R.

for us to stop the F-4.5 down to F-8, and as you doubtless know, both lenses then are of the same speed. As to the focal plane shutter, you should realize, if you speed it up, the water is apt to look frozen and not at all as it appeared to the eye. Furthermore with the lens opening at F-8, which we found necessary, to use a greater shutter speed would have meant the darks of our picture would have been under exposed; all of which goes to show that if we owned such a beautiful camera as just mentioned, we should have to slow down our lens to get depth, and also slow down our

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shutter to accommodate our lens. Is it not a fact that most of us are better off than we realize? This is not confined to photography only.

There is another lesson this picture will teach. We will now consider time exposures. Some photographers when taking a picture in the sun



A FEATHER RIVER CANYON WATERFOLL

showing strong contrasts of light and shadow, will stop down, away down, believing that by so doing a certain magic in the lens will dig in to those over dark shadows and dig out the detail hidden there. All this is wrong. The smaller your stop the greater your contrast, there is too much contrast in the subject already, why aggravate things? What should we do? Next time try a stop only small enough to secure sufficient depth of focus and time accordingly. If you look at Mr. Lawton's waterfall you will see he did well with F-8 and one-fiftieth second, this only shows we can use larger stops with contrast subjects than accustomed to and be perfectly safe in so doing.

A VIEW PHOTOGRAPHER

My last picture is another view of Feather River Canyon. I notice Mr. Lawton has written a note on the back of this picture. I will quote: "Views of this description can only be had by hard climbing, and illustrate my idea and suggestion that a small hand camera is essential to any professional equipment."



ANOTHER VIEW OF THE CANYON, W. P. R. R.

In my conversation with Mr. Lawton I made the following memoranda in answer to my questions: Mr. Lawton takes two cameras along on his trips, a Butcher camera, 3A or post card size, fitted with a Goerz Dagor F-6.8. With this outfit he says he can get anything with the lens set at one hundred feet, working with stop F-8. The second camera is a 5x7 Graphic, fitted with a Bausch & Lomb Protar. Commercial Ortho films are used as a rule, seldom plates, on account of possible breakage and weight. M. Q. developer, for both negatives and paper.

Soft Focus Photography in the Average Town

By G. H. Brown



With Illustrations by the Author

It is interesting to note that the entire civilized world has failed to become enthused over the present day soft focus effects. It is true, the effects are rather artistic and the writer is inclined to lean toward the practice, however, my fancy has nothing whatever to do with this article, but of the average town's conception of soft focus.

Even the side lighting is not popular with the people of the average town.

The other day, a prominent social leader of the young folks' circles, came to the studio for a sitting for large cabinet stuff. I was very eager to please her, because she appeared to be a really charming young lady and I felt that it would be a good advertisement to make her something out of the ordinary. I conceived the idea of making her an artistic print, not a soft focus but just a side lighting, and I succeeded well. When the proof was displayed, however, I was audience to such a line of patter as here recorded:



Diffused Portrait
Rejected, a Sharp Picture Preferred

Side Lighting
This Was Discarded for a Straight Portrait

SOFT FOCUS PHOTOGRAPHY IN THE AVERAGE TOWN



Both These Types of Portraits Are the "Bread Getters" in the Average Town

"Oh! Mr. Brown, that is a fine picture. Really an artistic creation, but look at that side of my face? How dark! I don't like that—it makes me look like a negro. Will you please make another sitting? It is a good photograph but my face is so dark—right there on my right cheek—see that dark spot?"

Oh yes, I noticed the dark spot allright. I had intended it to be there, and congratulated myself on the artistic merits of the print. Of course I did not tell the young lady this, however, I did tell her that the dark spot on her face really belonged in the picture. She gave me a sweet smile, as if to indicate that she believed me mentally unbalanced. It is needless to say that I gave up the defense and assured her that I would be very glad to make another negative in the manner she desired.

It might be interesting to note, that the resitting was made in the most commonplace manner, that of a straight "look you in the face" pose, with no soft focus or artistic lighting whatever. Was she, this average town society leader, pleased with the second proof? I assure you she was, and it was nothing out of the ordinary pose or lighting.

It was just a common "daily bread provider," the type that gives a living to many, many an average town photographer.

I mention this incident to prove that in the average town, the artistic appreciation is pretty small. You make the trade a good, artistic photograph and they think you are trying to put something over on them, even if you do not charge more than your regular rates, and on the other hand, you make them a photo in the ordinary manner and they are well pleased, and rate you among the "Old Masters."

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Such is photography in the many thousand average towns. Their education in relation to art and originality, has been sadly neglected. Do not get the impression that I insinuate that it is good policy to push these side lights and soft focus photographs on your trade. Never! You are in business to please the people and not yourself, so make what they desire and are willing to pay their good money for, rather than the stuff that pleases your artistic taste. That should be the policy of the average studio. If you are located in some of the larger cities, and have the patrons who are able to spend large sums on photographs, then make the soft focus and side lightings by all means, but if you are one of the ordinary average town photographers, I advise you to leave off the artistic effects, because your trade will not stand it.

This little article is not based on theory by any means but practical experience in average town studios and galleries, and it might be interesting to note, that every time I make a soft focus or side lighting photograph for the average trade, it is rejected in favor of an ordinary pose and expression.

It remains yet for the people, these average town folks, to be educated to artistic work and personally I know of no way to bring this about. Something like cultivating a liking for olives, I guess, will fill the bill.

There is an excellent photographer in my home town who is called a "Crank," "Fool," and an old "Fogie," just because he does make really good, artistic photographs.

Such is art in the average town—sadly neglected.



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Specialization and Hobby

There are decidedly great advantages to be gained by specializing. It stands to reason if we direct our energies in one line of effort we grow proficient in that line. The specialist's work commands respect, it shows that "little extra" which makes all the difference in the world. In no line of pictorial work do we find "the jack of all trades" as we do in photography. The comparative ease of photography tempts a large majority of amateur photographers to follow all lines. There are workers innumerable who can do good work, they belong to and they constitute one of a crowd of the skilled, and they are lost in that crowd. We have met some who have dropt photography after spending years at it. Various reasons may be given, of course, the chief one is lack of time, but the true reason is probably a dead hobby.

The photographic hobby that travels in a circle is apt to become monotonous. When we have learned the various processes and mastered the mechanics of it we approach our limit. For within us sounds an echo, "it's the same old round," and this is true for we have reached that level, one of a crowd of the skilled.

We do not preach the importance of photography for its own sake, but we do preach the importance of the hobby. Think what that hobby has meant in the past. To many, it has meant health. It is the hobby then that counts, we must quit the aimless circle and take the straight line, we must try and be an individual, a specialist, we owe it to our hobby.

No matter what branch of photographic work it is, if it particularly appeals to you, specialize on it. Confine yourself to that one thing as a study. If the landscape means more to you than to your neighbor, take it and work with it. At best he only saw what the glass eyed lens sees, whereas, you saw infinitely more. That different feeling you possess is nature's favor, back it with diligent effort and you win. It is up to you, as you saw more you must show more in your work, it is the magic touch, that "little extra," that points to specialization. We do not tire when others admire our work, we find problems but with time we conquer them, it is part of the game and is that not part of our hobby?

Amateurs are in an enviable position. They are untrammelled by trade necessities. Their work remains a joy if their standard is high. As long as your hobby lives you have reason to be happy.—E. F.

The Profit of Love

This is no fairy story, though it begins like one. Once on a time, back East, lived a first class photographer. He owned an up-to-date studio and because of the excellence of his work he prospered. This photographer, though a professional, had a hobby, and what do you think this hobby was? You could hardly guess it, we just whisper,—it was photography!

This man had made portraits of women and beautiful women, but to him there was something more beautiful—his love—flowers. Of flowers there are a countless variety, of these varieties this artist specialized on one, the rose, he loved it. But you will ask why prolong this piffle, who was he? This man was Bundy, and he is, Arthur L. Bundy of Richmond, Indiana, portraitist of flowers.

Today, Mr. Bundy devotes most of his time to flowers. There are many florists in Indiana, companies with large invested capital. To these men the portrait of a rose means a picture by Bundy. These pictures are made for the catalogues, they must be good. Upon the merit of these pictures rests the future homes of countless plants. It is for these pictures to determine whether thousands upon thousands of dollars shall go to Indiana or elsewhere.

Do you like roses? We have received from Arthur L. Bundy, some of his portraits of roses, and what we hope will be as equally interesting to you is, a well written story telling you just how he works to make these beautiful pictures. We will tell you this much in advance, however, Mr. Bundy develops his negatives with—good old pyro!

To our amateur friends: read this article in the February number of Camera Craft. We have spoken of specialization, this man specialized. He is glad of it.—E. F.

Our Wild Flowers

We wish to thank our many friends for contributing pictures and text to the page devoted to our wild flowers during the past season. We have received many letters of approval commenting on this interesting and useful department. We wish to continue it.

Now that we are on the threshold of a new year, we ask our readers to contribute some more pictures that we may be able to continue this series. No matter in what part of the United States you may live, pictures of wild flowers are desired and with each specimen sent enclose about 200 words of written description. We want to know where these flowers may be looked for, what their color is and the size of the plant, so that anyone may identify them when meeting with similar specimens.

Make your pictures clear and sharp, and if you have a camera with only a short extension of bellows you will find a portrait attachment invaluable to secure a larger picture. Reference to back numbers of Camera Craft published during the year will show you what is wanted.

ART AND THE CRAFTS

A Department Devoted to the Encouragement of a Closer Relationship
Between Photography and the Fine Arts.

Photographic Aids to Non-Photographic Arts

A few days ago a storm broke thru the Golden Gate, and the hills on the Marin County side were thrown into vistas of aerial perspective set in a background of clouds of sombre, almost unearthly, magnificence—a scene that the eye sees but rarely, even in a generic sense. So rapidly did the storm gather and pass that not even the most rapid worker could have caught its salient masses. There were but two media that could preserve a record—a perfect memory or the photographic plate. The writer, looking on that scene, felt as tho its elements were impressed on his memory forever. Alas, the best trained memory is a fallacious thing when dealing with objects whose forms and values are only relative. The camera could have

given me a record that memory might amplify and build up in another medium into something worthy of the original, but as usually happens on such occasions, the camera was not there.

This is by way of introduction to the subject under consideration, the taking of photographs not as pictures per se, but as aids to the better making of pictures in other media. I am aware that in Europe photographs are made and sold for artists' use, but they are not taken nor arranged so as to help solve definite problems that cannot always be referred to nature for solution at the time they are needed. We hope to help in this direction by taking up the elements of picture building and the questions that beset it, and giving examples of how the photograph may aid the artist.



SCHEME—LIGHT ON DARK

CAMERA CRAFT

As a first essay in this direction it seemed in place to offer some photographs with indications as to the ways in which they can be best utilized. The general idea will be to give special studies of conditions that cannot be always drawn or painted en plein air, or readily memorized, and furthermore, to consider like or similar materials under different forms of lighting. We commence with foreground studies because to the honest artist, who in spite of much modern practice, still has a respect for draughtmanship, the correct drawing or painting of a foreground is often a difficult task—it takes time, it calls for knowledge, it cannot always be carried out at the spot where a picture is laid in. It does not lend itself to the smudge and “get-there-quick” method, and such being the case, pictures based on foreground subjects are not in great favor with that school. But great artists in the past have concerned themselves with pictures in which the foreground has been the principal or subsidiary element, and great artists will do so in the future. Burleigh Parkhurst has well said, “Have your foreground details well understood in drawing and value. Everything requires structure. Structure is fundamental to character.

Nothing is important enough to put in, if it is not important enough to have its character and purpose in the picture understood.” Now, foreground details exist more often in the mind as knowledge than in the eye as visualization. The reason is this: the eye is normally focused at a mid-distance point that overlooks them. We know that grass and daisies, herbage growing on the wall, and so forth, have a certain shape and color, but we do not carry vivid impressions of them under different conditions as well as we do with clouds, trees and buildings. Someone may retort that as we do not usually notice them in nature, why should we care about them in a picture? The answer is that a picture is viewed under conditions different to the scene it represents. The eye may overlook the foreground detail in nature—it cannot overlook a misdrawn or smudged foreground on a canvas. What we cannot escape we should seek to do well. The camera, especially the reflex camera, can study foreground beauties to perfection. From the records so formed selection can be made and drawing corrected. We give four studies of vegetation: in light against dark. We expect to follow it by the re-



THE SAME SCHEME BUT DIFFERENT FOREGROUND

ARTS AND THE CRAFTS

verse conditions, and then deal with other studies. In one instance we have taken the foliage of a tree in the foreground plane and reproduced it in crayon to show its fundamental structure and indicate the

kind of simplification that is needful in transmuting the too-abundant detail of a photograph into a picture. We must never miss the structure by too-insistent detail.

H. D'ARCY POWER.



FRAGMENTARY SKETCH FROM PHOTOGRAPHIC STUDY

A PHOTOGRAPHIC DIGEST

Edited by H. D'Arcy Power, M. D.

Desensitising Autochromes Before Development

In consequence of their great color-sensitiveness Autochrome plates have hitherto required to be handled in a very weak dark-room light. Even when the Virida safelights, which we have regularly recommended, have been used, it has been necessary to take every precaution for avoiding fog by protecting the plate, as far as possible from the dark-room illumination, and, in fact, exposing it to this latter for no longer than is necessary for noting the time at which the image begins to appear. Even this observation, which is necessary for ascertaining the correct time of development, is of some difficulty owing to the weakness of the light.

It is, therefore, evident that it is of considerable interest to employ a process by which the color-sensitiveness may be destroyed immediately before development, without affecting the latent image, and so allow readily of noting the action of the developer in a relatively bright light.

As is well known, this desensitising has been rendered practicable by Lüppo-Cramer through the employment of pheno-safranine. The remarkable action of this substance has led us to carry out a wide series of experiments on the chemical substances which exhibit this property ("B. J.," June 17 and 24, 1921). After having examined a number of dyes and other various mineral and organic substances, we failed to establish any definite relation between the chemical constitution and the desensitising property, but we discovered that certain other compounds possess the power of desensitising. Among these are aurantia (the ammonia salt) in 1:1,000 solution and picric acid in 1:100 solution. In the case of aurantia the desensitising effect

is comparable with that of phenosafranine, but without certain drawbacks. The staining of the gelatine film with phenosafranine is more persistent than that with aurantia, which is very rapidly washed out. On the other hand, phenosafranine not only retards considerably the appearance of the image and of development, but this retardation is not constant for a given exposure. With aurantia, however, development takes place practically in a normal and uniform manner.

The desensitising action of picric acid is distinctly less than that of the preceding substances, particularly for red and green rays, but nevertheless it is sufficient for conditions of lighting indicated below.

Comparative experiments with these three desensitisers have been carried out as follows:—The method of development based on the time of appearance of the image, was employed in conjunction with metoquinone developer and with plates which had been exposed under identical conditions, except that the exposures varied from one to another according to the values, $\frac{1}{3}$, $\frac{1}{2}$, 1, 2, 4, 6, etc., the time of exposure required for a normal result being taken as 1.

Each plate thus exposed was cut in two. One-half was developed under the usual conditions and the other was immersed for 30 seconds in the desensitising bath. Development of the desensitised plates was continued so as to obtain a result as close as possible to that yielded by the normal treatment.

In ascertaining the time required for the appearance of the image a diluted developer was used; that is to say, 5 ccs. of the normal stock solution of metoquinone or chloranol were diluted with 80 ccs. of water.

A PHOTOGRAPHIC DIGEST

Times of exposure compared with normal	Development without desensitiser			Development after desensitising								
	Time of appear- ance of image	Total time of develop- ment		Aurantia			Picric acid			Safranine		
				Time of appear- ance	Total time		Time of appear- ance	Total time		Time of appear- ance	Total time	
		seconds	min.		sec.	seconds		min.	sec.		seconds	min.
6 to 8 times normal.....	13	1	15	17	1	30	20	1	45	23	1	55
4 to 8 times normal.....	16	1	45	19	2	—	22	1	55	26	3	—
2 to 8 times normal.....	19	2	15	21	2	30	35	3	40	40	4	10
Normal	25	3	—	24	3	—	39	3	55	47	5	—
$\frac{1}{2}$ normal	29	3	30	33	3	30	42	4	10	50	5	30
$\frac{1}{3}$ normal	36	4	30	40	4	30	48	5	—	60	6	40

The stock solution is:

Metoquinone or chloranol.....	15 gms.
Soda sulphite, anhydrous.....	100 gms.
Potass bromide	6 gms.
Ammonia, 22 deg. B.....	32 ccs.
Water	1,000 ccs.

In dealing with plates which had been treated with the desensitisers, the illumination employed was either that of a candle or Pigeon lamp at a distance of 20 in. from the dish, or obtained with a 16 c.p. bulb in a dark-room lamp fitted with six Virida yellow safelight sheets and placed 1 metre (40 in.) from the dish.

After having counted the number of seconds which elapsed after insertion of the plate in the developer for the appearance of the first outlines of the image, 15 ccs. of concentrated developer were added, and development continued, whilst also continuing counting, with the back of the plate turned towards the source of light, when it is not indispensable to observe the image in order to note the progress of development.

The times required for the production results as close in character to each other as possible are set out in the accompanying table. The figures shown for phenosafranine are averages, since the results with this desensitiser varied considerably from one plate to another, although the conditions of manipulation remained constant. The table thus emphasizes the fact of the considerable advantage of aurantia for the desensitising of Autochrome plates over other desensitisers.

A. & L. Lumière,
A. Seyewetz.

—in B. J. of Photography.

The Mechanics of Light-Filter Making

As a general rule light-filters are best bought, not made, but there are many who

take a pride in making their own apparatus quite independently of any saving in cost, though this feature must always make a certain appeal. It is not suggested that the manufacture of one or two small light-filters can be effected in most cases more cheaply than by buying them, but cases not infrequently arise when home-made filters save the pockets very appreciably.

From time to time much information has been published in various journals relating to the spectral qualities of the various aniline dyes employed in filter making, and precise formulae for coating have been given in past numbers of the "B. J." The reader is directed to coat a certain area of glass with a definite weight of dye incorporated with a stated quantity of gelatine solution, but the mechanical side is usually left severely alone, or but briefly alluded to. Yet the mechanical aspect is of the utmost importance with light-filters employed in front of, or just behind the lens if its optical properties are not to be impaired.

With the exception of a few remarks regarding the general characteristics which dyes must possess to render them suitable for filter making, only the mechanical side will be dealt with by the writer who has had a long and practical experience. It consists in the selection and cleaning of the glass used for the temporary and the final support for the dyed gelatine pellicle, stripping the film, and cementing and drying the finished article.

The Dyes

Dyes for filter making fall into two broad classes—those suitable for "compensating" or "correcting" filters, and those adapted for "selective" filters. In the former type, familiar to all photographers,

A PHOTOGRAPHIC DIGEST

the dyes used must have a gradual absorption, subduing or damping down the actinic light (to which the plate is most sensitive) to an intensity that allows the less actinic light to adequately record itself within the period of correct exposure for the more actinic rays. Complete, or partial correction can be obtained in this way, dependent upon the degree of sensitiveness of the plate to the spectrum, and the spectral qualities of the light-filter. The dye must not cut off any portions of the spectrum entirely, but only damp them down to such a degree that they are recorded in their correct visual luminosity. Too sharp a cut, say, of the violet and blue results in these colors being rendered as unnaturally dark. On the other hand, too sharp a cut is not possible with "selective" filters, which demand the minimum absorption in the transmission region, the ideal aimed at being the complete cutting off of certain portions of the spectrum, and the passing of the remainder in full intensity.

Optical Conditions

In addition to the correct spectral qualities of the dyes, the following conditions are essential for the production of filters to be used in front of, or immediately behind the lens.*

*Tricolor filters must also have the same focal-length, give the same size image, and be of identical thickness.

(a) The glass must be flat, and have both sides parallel.

(b) It must be free from strain, air-bells, and scratches.

(c) The colored gelatine must be transparent, of even density, and free from dust, etc.

(d) The filter must be mounted so that no pressure is applied to it, and be sufficiently large not to obstruct marginal rays.

If the filter is placed close to the focal-plane parallelism is not of so much consequence, but the presence of scratches or dust is then even more objectionable. If used outside the lens system, as over the slit of a spectroscope, the only essential is correct absorption.

Selecting the Glass

The best glass to choose is known in the trade as "extra-white patent," or "parallel-

plate," though for many purposes the cheaper "patent plate-glass" may be used, though it has smaller areas of flatness, and is somewhat green in color. For the highest class filters optically worked "flats" are employed, which should not be thinner than one-fourth inch to avoid any tendency to buckle in cementing. For all ordinary work glass one-sixteenth inch thick will be serviceable for filters up to two inches square or in diameter; for larger sizes slightly thicker is preferable.

To test for flatness the well-known expedient of holding the glass at an angle of 45 degrees to the cross-bars of a window and observing the reflections from the front and back surfaces is satisfactory. Still better, as a test object is a thick cord stretched taut. The glass is moved about so that its whole surface is tested. If the two images keep the same distance apart the glass is flat, divergence, or convergence, indicates the contrary. Mark the flat parts with a piece of dry soap cut to a point, which if free from grit will never scratch the surface. Apart from flatness, any portions which show air-bells or scratches should be rejected.

A perfectly regular divergence or convergence indicates the glass to be wedge-shape. By selecting two glasses exhibiting the same error in equal degrees, it is possible to compensate for their departure from flatness by so mounting them that one error neutralizes the other, but the selection of flat portions is to be preferred.

Cutting and Edging

If only a comparatively small area of glass is being dealt with the simplest way of cutting it into squares is to lay on a flat surface some squared paper, as a guide, marked to the size, or sizes, required, and on top of the glass; cutting may be done either with a diamond or good wheel-cutter, the latter being more liable to produce fine splinters. A flat rule or straight-edge is applied to the guide marks, with the necessary allowance for the clearance between the straight-edge and the cutting surface of the diamond or wheel cutter. An allowance of about one thirty-second inch is also made for the subsequent grinding. All cuts in one direction are made first, the glass

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is then turned over, again adjusted to the guide marks, and the cuts at right-angles executed. Then, and not before, break apart. In commercial work special boards are, of course, employed.

The edges now require to be smoothed, which for squares is an easy operation. A piece of fine emery cloth is glued to a flat board, or a length of flat iron has some fine emery or carborundum powder sprinkled on. Using a small quantity of turpentine as a lubricant, the glass is worked up and down the surface with long and steady strokes, taking care to first remove the sharp edges by beveling them. This is effected by holding the glass at an angle of about 45 degrees, and is a precaution which should never be neglected, as it prevents chipping.

Circles of glass are usually cut with a special apparatus which gives the glass a circular movement under a stationary diamond. They can only be edged satisfactorily by a circular stone of fine grit—"Craigleithe," or manufactured stones are generally employed. Use steady pressure and keep the glass moving in the opposite direction to that of the stone. Care is necessary to avoid flat places and facets. Several same size circles can be edged in this way in one operation if they are stuck together with paraffin wax.

Glass squares can be fashioned to circles, but some practice is required. The square is first roughly shaped with "glass-shanks," and then ground to fit a circular ring. For an occasional job discs of metal or other material stuck on the glass will furnish the necessary guides. The observations as beveling squares apply equally to the edging of circles.

When edged, wash in warm soda solution, wipe with soft cloth, and polish with fine tissue paper damped in alcohol. In pre-war days good quality methylated spirit was employed; much of the present-day spirit may be unsuitable.

Throughout all operations, great care should be taken not to scratch the glass, splinters of glass on the cutting board being a fruitful source of trouble.

The Gelatine Film

Many will prefer to purchase the spectroscopically tested dyed gelatine obtain-

able at comparatively modest prices, but if its manufacture is undertaken the actual glass used for the filter should never be coated with the dyed gelatine solution. In the first place, the pull on drying is considerable; so much so, that even thick plate-glass may be distorted, and in the second place, the gelatine coating in the center will be perceptibly thicker than at the margins owing to its drying there first.

In the following instructions it is assumed that the requisite dyes are incorporated together, and therefore only one piece of gelatine will require cementing. It may be candidly admitted that making the gelatine pellicle and stripping it certainly does require care, but if the directions given are carefully followed success is assured, provided the operator is not "all fingers and thumbs."

The Temporary Support

Thick plate-glass is employed as the temporary support, and it is essential that the surface to be coated be absolutely clean. The glass is placed in boiling water and allowed to soak for a short time, and then rubbed over with a soft brush to thoroughly loosen any adhering dirt or grease. Remove the glass, and pour on the surface to be coated boiling water from a kettle, drain off, and, before quite dry polish with clean tissue paper, and wrap in clean paper. When the glass has cooled down sprinkle on a few drops of benzole, and again polish with clean tissue paper until not a suspicion of smear remains. If coating is not immediately to be proceeded with two glasses should be so treated and placed, polished sides in contact, in clean paper.

It may here be remarked that if the glass is well cleaned and polished it is not necessary to wash it again after the gelatine film has been stripped. Any adhering gelatine at the edges is removed, and the glass re-polished with the benzole. Should, however, the gelatine film after stripping show any signs of being smeary, a repetition of the washing procedure is required.

(To be Continued in February Number.)

THE AMATEUR AND HIS TROUBLES

Conducted by Edgar Felloes.

Prints in Color

The first thing we know the holidays will be here. The holidays—what a time we may have with our hobby. There are a lot of prints we must make for our friends. Christmas cards may be sent of course and our friends will be glad to receive them, but what is a card of this sort compared with a picture of our own making in our friends eyes.

Summer is over. You have negatives. That is your hobby, making photographs; what are you going to do with all those negatives, your summer's work? Print them in black? Why not try color, yes, why not?

Pictures in black from good negatives are beautiful, without doubt but give your friends something a little different—just for the holidays.

In the line of color, seeing that a large portion of our negatives consist of views, lakes, rivers, the ocean and woodland scenes, these will show up to great advantage in Kodak Velvet Green. We have nothing new to learn when using this paper, unless the exposure to daylight may be called something new. The paper is not as rapid in printing perhaps as you have been accustomed to, but the exposure to daylight is only from ten to thirty seconds; you do not need sun, in fact it should be avoided. The reason for the difference in the exposure time is, the variation in the density of our negatives.

This explanation is given for the benefit of the beginner. The cause for these variations is usually attributable to the varying conditions of light under which these negatives are made. We amateurs are an enthusiastic lot. We start out on a holiday bright and early. We see something we like and we snap it. And so

during the day we see other things we like and we snap them, forgetting the light has all the time been changing. When we develop or have our developing done for us and we find a wonderful variety in the density, or we may call it if you like, the color of our negatives. The overstrong negatives, the dark ones will give us light prints, the thin or light negatives will give us dark prints and that is why you are told to make your printing time vary from ten to thirty seconds. The light negatives may need the lesser time whereas the strong negatives must have a greater exposure. All so simple, and as that rough headed boy declared, "it is just as easy as falling off a log."

There is no need for me to tell you how you should go to work to make prints on Kodak Velvet Green paper. In the packet of paper you buy you will find instructions that are simple and easy to follow. Naturally these instructions are written by an expert who has the aid of other experts in chemical knowledge, and no beginner can hope to improve on them. This is what I have noticed, a new hand frequently turns out surprisingly good results, but after a while when they have learned something, sprouted their wing feathers as it were then troubles begin. One is told they did just the same as before; now look at the result! Wing feathers are useful for flight and they do not have to grow very long to enable the imagination to soar quite a distance. Someone is blamed, and this makes quite a story.

There are many shades of color to be secured by toning our black and white prints and they are not difficult to get so long as we are careful and use our best negatives. The color will not help matters if our negatives are at fault, if the

THE AMATEUR AND HIS TROUBLES

print is muddy or flat looking discard it and try again. Success is sure if the negative is right.

Toning With Copper

The following formula is known as Ferguson's process, it was originally used for toning bromides but it will serve for other developing papers. A variety of colors may be secured by this method from a warm black to a crimson. I am indebted to Wellington's Photographic Hand Book for these particulars.

Three stock solutions are required:

- A. Neutral Potassium Citrate....4 ounces
Water to40 ounces
- B. Potassium Ferricyanide.....1 ounce
Water to.....10 ounces
- C. Copper Sulphate.....1 ounce
Water to.....10 ounces

Five ounces of A are taken and to this is added half an ounce of B and half an ounce of C. The print, after it has been fixed and well washed, is dried or not, whichever is more convenient. If dry it is soaked in water until it becomes limp. The wet print is then placed in the toning bath and watched. It will be seen to commence to change color at once, passing from black to warm black, brown, chocolate and finally red. When it reaches whatever color is desired, it is taken out, washed for ten minutes in several changes of water and then dried.

Toning With Iron

Blue tones may be obtained by this method. In this case besides the solution B mentioned above, the following will be required:

- D. Ferric Ammonium Citrate....½ ounce
Water to.....10 ounces

The actual toning solution is made by mixing:

- B1 ounce
- D1 ounce
- Nitric Acid.....½ dram
- Water to.....10 ounces

The prints are toned in this exactly as described above, and after toning may be washed for ten minutes or a quarter of an hour, and then finished. In this process if the whites of the print are not clear by the time the washing is ordinarily finished, it may be continued until they are seen to

be clear, always remembering that if the washing is too prolonged the print will be weakened.

Borax—M. Q. Developer.

This developer may be used with success with developing out papers, the resultant color in the print will be somewhat warmer.

- Metal20 grains
- Hydroquinone50 grains
- Sodium Sulphite (cryst.)200 grains
(use half the above quantity if desiccated)
- Borax (powdered)200 grains
- Water (hot)20 ounces

Dissolve in the order given, allowing each chemical to be in complete solution before adding the next. This developer keeps almost indefinitely in well-stoppered bottles.

To prevent fog it is necessary to add one drop of 10 per cent solution of potassium bromide to each ounce of developer. The image will be of a black tone with a slight tendency to warmth, and softer in graduation.

By increasing the potassium bromide to 10 drops of a 10 per cent solution per ounce of developer, decidedly warm can be obtained. Development will take from three to four minutes.

Contrast Lantern Slides

Here is a formula that will give lantern slides of great contrast. There is one important consideration in the making of contrast slides and that is the simple question of exposure.

If your negative is so thin that it is impossible to give a generous exposure, a black and white slide is out of the question. It is the exposure that determines the final result. The silver in the gelatine must be acted upon by the light well down into the film. When we attend to these things, the securing of ample density is a very easy matter.

A:

- Water10 ounces
- Hydroquinone100 grains
- Potassium bromide100 grains
- Potassium metabisulphite....100 grains

B:

- Water10 ounces
 - Caustic potash200 grains
- For use, take equal parts of A and B.

FOR THE PROFESSIONAL

In the Interests of Commercial and Portrait Photographers.

Commercial Photographers' Association of San Francisco

It is now two years since this Organization was formed. Its aims are to better the conditions of its members by general intercourse, lectures and discussions.

The present membership comprises all the leading commercial photographers of this city and the advantages of association are by this time apparent in good fellowship and a brotherly feeling.

On November 15th, a meeting of the Association was arranged by Gabriel Moulin, at the Solaris Grill. The dinner was followed with a talk by Harold J. McCurry of Sacramento. Mr. McCurry's subject, an account of his visit to the Annual Convention of the Photographers' Association of America, held at Buffalo, N. Y., which he attended, as Chairman of the Western Division. The discourse was a review of the general methods of photographic work pursued by the large Eastern firms, a subject that proved interesting and helpful.

Mr. McCurry had brought back with him samples of colored prints from a demonstration given at the Convention by Webster Bros., commercial photographers of Chicago. Their methods were described and the excellence of the results as shown in the samples were most favorably commented upon.

December 6th, the montly meeting of this organization was held at the same place and an enjoyable dinner preceded the business of the evening. The election of officers, a presentation to Mr. Moulin, a talk by Charles W. Duncan, vice-president of Foster & Kleiser, on "Color and Composition in Commercial Photography." This was followed by a practical demonstration on the coloring of photographs before squeegieing, by Wilbur Robinson, all proved an interesting time.

The writer, being an invited guest on this occasion, will here give an account of the doings, dwelling on the two talks so much appreciated by the members. The election of the new officers for the coming year was the first item on the program. There was considerable good humored bantering, but it was evident the former President Lawrence B. Morton, was destined to serve another twelve month. In many organizations of this sort, members quickly recognize the real workers, and they appear a unit in the determination that certain good people should go on working. It was amusing to notice how honors were offered to the other fellow. It was remarkable how unworthy so many felt for any kind of office. Poor George! Yes, George was here, George always is, and the honors were his also. The new officers selected,—pardon, the old officers selected for the new jobs stand thus:

Lawrence B. Morton, President.

Dalton Scott, Vice-President.

Miss Olga Dahl, Treasurer.

Gabriel Moulin, H. D. Lothers, L. L. Stopple, Directors.

L. A. Ireland, Secretary.

At the end of the election, Secretary Ireland made a graceful speech, followed by his presentation on behalf of the Association to Gabriel Moulin of a handsome leather grip in recognition of past services. The grip was a man's size, a mighty good one, and Mr. Moulin could have been knocked down with the proverbial feather, he was genuinely surprised. The grip was inspected by the younger members of this organization, it was beautifully lined with leather and they discovered a pocket, a suspicious looking pocket, some said it was made for a flask or a bottle, but we hardly think people are now so wicked, perhaps it was made for hair-brushes.

Charles W. Duncan unpacked a large bundle of diagrams and designs and

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prepared for his talk. It was easy to see Mr. Duncan did not do things by halves, he was fully prepared and if any one in the audience was heretofore ignorant on the subject he proposed to treat on, it was clear that the intention was to dispel that ignorance.

We were told that color resolved itself into three pigments, red, yellow and blue. These three pigments are called the primaries because they are basic, that is they cannot be made by a mixture of other colors. But by mixing any two of the primaries together we form what are known as secondaries, orange, green and violet or purple. Here diagrams were shown to make this clear. If we mix two primaries, red and yellow together, we have orange as a result and the remaining color, blue, becomes the complementary of orange. This means that to have orange appear in its greatest brilliancy it should be shown in conjunction with blue. A mixture of blue and yellow will give us green and as red is the outstanding color of the trio it becomes the complementary of green, therefore, green placed next to red causes both colors to appear in their greatest contrast. We still have another combination, that is red mixed with blue. This mixture gives purple and it is easy to determine its complementary yellow, which is the outstanding color of the primary. By placing purple alongside yellow we also have these pigments displayed to their greatest advantage. Thus we have the three primary colors red, yellow and blue, and we have their combinations of three new colors in orange, green and purple which are known as secondaries.

The speaker continued: To prove how grateful the eye is for the complementary color he exhibited other charts, each one colored and on the face of each was painted a black circular band. An orange colored card was shown bearing on its face a broad black circle. The audience was requested to stare at this for a period of about half a minute, the card was turned around exposing its white back and on this white ground appeared a blue circle upon a pale orange-grey ground. It was explained that the eye needing the blue as a complementary to the orange, as paint-

ed on the other side of the card, simply supplied itself with that blue color when the card was reversed. This appearance of color was supplied by the optic nerves to satisfy a demand. The orange-grey ground that appeared around the blue circle on the white card was what would happen with a very dilute mixture of orange and blue, for the two sensations were still retained on the optic nerve. The reader should understand the colors appearing on the white card are sensations and not actual pigments. The same idea was demonstrated on a green card bearing a black circle. After gazing at it for a sufficient time and, turning the card around to its white side the eye noted a red circle which was nothing more than the complementary color of that green ground upon which the black circle was painted. The instructor further explained, if we take a patch of positive color, let us say a piece of blue cardboard and cut it into any convenient shape, say a triangle, stare at it for a given time and then close our eyes, we shall then behold "in our mind's eye" a triangle of orange color. This the reader will remember is the complementary color to blue.

Diagrams were then exhibited with red, blue and yellow grounds, upon them had been painted white or very light grey crosses, with remarkable results. It must be understood all these crosses were exactly the same color, in fact, the pigment for these crosses was out of the same pot, yet no two crosses looked alike, some appeared considerably darker than others, not only that they appeared of different shades in color, all this the reader will appreciate from what has been written about the diagrams bearing the black circles.

Mr. Duncan now turned his attention to the second part of his talk which was to be on composition. For this purpose he had armed himself with several of the original drawings used by Foster & Kleiser for advertising purposes. To get the real value from the speaker's remarks it would be necessary for the reader to have these drawings before him. We must content ourselves with an example Mr. Duncan gave to make clear his meaning of

FOR THE PROFESSIONAL

balance. Let us imagine a board or beam balanced. On one side of its center sits a man, on the other is a child. Reason and instinct tell us the balance is destroyed, we have a sensation of discomfort. We realize instinctively the only way to restore the balance is to increase the distance of the child from the balancing point. The speaker illustrated this lack of balance in a design he exhibited. This design was executed to advertise a certain brand of oranges. The fruit, beautifully colored, was shown in a blue glass dish, the reason for this color combination the reader already knows. But there was the lack of balance spoken of, for on one side of the fruit was lettered the brand and such advertising matter required. Let us say the bowl of oranges represented the man as it was the largest object in the picture, the lettering takes the boy's place, and as explained, if there was a lack of balance it showed the lettering (or boy) was too near the oranges (or man) to be perfectly satisfactory. In this instance the cure was simple, all that was necessary was to move the lettering more to one side. But it does not always happen that a difficulty can be overcome in that easy manner. It takes considerable grey-matter to have things right. A vote of thanks was tendered Mr. Duncan and everyone responded in hearty manner for what proved to be a first class talk.

The Coloring of Prints

Wilbur Robinson followed with his demonstration on print coloring to meet the requirements of present day commercial needs. There were two points to receive attention in this demonstration. The first, the pictures should be colored before the squeegeeing. The second, where white or light letters appear on a colored ground, these letters should show in their purity and not be tinted or have rough edges through slips of the brush in coloring that ground. The colors used by Mr. Robinson were supplied by Webster Brothers, of Chicago, Illinois. These consist of various dyes, and the writer understands that other makes of dies have been tried and found satisfactory.

The demonstration was on a print of a fancy bottle of the "cut glass" variety, it

bore on its face a label which was to be colored a deep orange with white letters displayed on the colored ground. To cut around these white letters with the orange would be laborious and raise cost, and it is doubtful if good work could be accomplished in that manner. Selecting a suitable brush, Mr. Robinson applied (what is called by the makers dye proofing) over each white letter. This dye proofing has the appearance of asphaltum varnish. In fact we believe this varnish would serve the purpose, it may be thinned with benzine to suitable consistency for pen or brush. All parts of the work to be protected from color are treated this way, also a fairly wide margin of this protecting coat surrounds such portions which need the color. This varnish soon dries and the print is then ready to receive the color. In this case under demonstration it was orange. A soft brush was charged with the orange dye and it was applied freely and fully, it was left to soak for a moment and the superfluous solution blotted off. The only care needed is to apply the dye freely so that the color may be uniform, the boundaries of the painting space are protected by the varnish, in fact, the actual coloring is the quickest part of the operation, the nice work consists in applying the dye proofing or protecting varnish. The colored print is now left to thoroughly dry and a piece of cotton wet with the solvent benzine is applied to the print and all varnish removed. We now have the print finished in a workman like manner as far as the coloring is concerned. The next operation is squeegeeing, the actual process did not need demonstrating before this audience. But there is one very important kink in wetting up the print. If the dried print is immersed in water the dye is apt to run, for this purpose then white vinegar, as prepared for table use, is substituted, use this full strength. Mr. Webster, whom we understand introduced this process, advises the passing of the hand over the surface of the print as soon as it is placed in the vinegar bath, do this lightly, and any free color showing will be removed in this acid bath. The print may then be rinsed a moment in water, if desired, then squeegeed.—E. F.

CLUB NEWS AND NOTES

Club Secretaries and others will oblige by
sending us reports for this Department

Pittsburgh Salon of Photography, 1922

The Ninth Annual Exhibition of the Pittsburgh Salon of Photography under the auspices of the Photographic Section of the Academy of Science and Art, will be held in the Galleries of the Carnegie Institute, Pittsburgh, Pa., from March 1st to 31st, inclusive, 1922. The Exhibition will be open daily 10:00 a.m. to 10:00 p.m., Sundays, 2:00 p.m. to 6:00 p.m. Press view, Wednesday, March 1st, 1922, from 8:00 p.m. to 10:00 p.m.

The aim of the Pittsburgh Salon is to exhibit only that class of work in Pictorial Photography in which there is distinct evidence of personal artistic feeling and execution.

All work submitted to the Committee of Selection will be carefully and impartially considered and no preference will be given the work of members of the Salon.

All Pictorial Workers are cordially invited to contribute.

Conditions of Entry

No. 1. No picture eligible that has been shown at a National Jury Exhibition in the United States prior to April 1, 1921.

No. 2. An entrance fee of seventy-five cents must accompany each entry form, addressed to the Secretary. This fee covers the entire entry.

No. 3. Pictures, except from Foreign Countries, must be mounted, but not framed, as the entire Exhibition will be hung under glass. Accepted foreign pictures will be mounted by the committee.

No. 4. Mounts for pictures must not exceed 24 inches by 26 inches, and white or light toned mounts of medium or light weight stock should be used.

No. 5. Each picture must bear on the back, plainly written, its number, title, name of the artist and return address to agree with the entry form.

No. 6. Not more than six pictures may be submitted by any one contributor.

No. 7. Entries from the United States may be forwarded by post or express, but foreign entries should be unmounted and forwarded only by Post, marked "Photographs for Exhibition Only—No Commercial Value."

No. 8. All pictures must be sent prepaid, packed flat and protected; and must reach destination not later than February 6th, 1922. Use attached shipping tag. They will be repacked and returned after close of exhibition, charges prepaid.

No. 9. Unless otherwise specified, permission to reproduce is presumed.

No. 10. All possible care will be taken but no responsibility is accepted by the Salon, for loss or damage in transit or at the gallery.

No. 11. The submission of pictures will be understood to imply acceptance of above conditions.

Address all communications, (not pictures; see rule 8), to Chas. K. Archer, Secretary, 1412 Carnegie Building, Pittsburgh, Pa.

Detroit Camera Club

This Club has sent out notices of their change of address from 45 West Mount-calm Street to 1304 East Jefferson Avenue, Detroit, Mich.

This change was necessitated as the club membership had more than outgrown their old quarters. We are informed the Club has much more suitable rooms on their present location. It now has two large rooms on the first floor and also the basement. This latter will contain four dark-rooms, lockers and many conveniences.

The Detroit Camera Club extends a friendly invitation to any photographers passing through Detroit to pay them a visit. The officers of the Club are, Preston M. Hickey, M. D., president; H. F. Wegener, vice-president, and W. E. Taylor, secretary-treasurer.

CAMERA CRAFT

California Camera Club

During the last month this Club enjoyed its 372nd lecture at Native Sons' Hall, "The Passing of the Old West" by Chas. Wellington Furlong, F. R. G. S., Lt-Colonel M. I. R. C. From the forward to this event we glean the following:

This lecture is based upon Lt.-Colonel Furlong's personal observations and actual experiences as an explorer, soldier, writer and painter. He has lived among the people and conditions which he describes.

He has just published a book (many of the illustrations will be shown in this lecture), entitled "Let 'er Buck," an expression known to all cattlemen, cowboys and vaqueros of the West.

Associated Camera Clubs of America

The following named were elected to hold office until September 30, 1923, or until their successors are elected:

Officers

President, Todd Hazen, Oregon C. C.; Vice-president, M. R. Witt, P. C. of Phila.; Secretary, L. F. Bucher, Newark C. C.; Treasurer, H. C. Brewster, Newark C. C.

Board of Directors

W. C. Mackintosh, Calif. C. C.; J. J. Ryan, Chicago C. C.; G. M. Miller, Capital C. C.; J. C. Stick, So. Calif. C. C.; W. R. Frisbie, New Haven C. C.; J. Lee Tormey, Photo. Club of Baltimore. (By appointment of the Board.)

All the amendments proposed in letter of June 1st, were approved. Please mark your constitution and by-laws accordingly. Annual dues Three Dollars (\$3.00)—Board of Trustees changed to Directors. A contributing membership with annual dues of \$10.00. An honorary President to be the chief executive of the United States. An initiation fee of Five Dollars (\$5.00) on all applications presented on and after October 1st, 1921.

Chicago Camera Club

"The Exposure", the latest organ of Club publicity to reach our desk bears on its cover Vo. I, No. II. This is quite a young thing as time goes, with a voice—clarion like. "The Exposure" is most promising, healthy children are, it is a credit to its parent the Chicago Camera Club.

Printer's ink today is like the breakfast coffee, it gives or is intended to give "pep" to our undertakings. The world or what we can reach of it must know of our doings. What we have to sell, even what we have to give away must be advertised.

The Exposure gives those interested all the Club news and goings on at the Dune House. The "Boys" and doubtless the "Girls" too have a fine time at this Club. We ask in wonderment when the jolly members do any work; for on the second page of this bulletin there stares at us unblushingly a Menu, "eats" and more of it, and so the day passeth. Brothers of the camera when do you work?

Camera clubs today are getting out these bulletins for the enlightenment of their respective members and as some of the younger clubs may wish to follow suit we suggest they include "The Exposure" to pattern by, there is snap to it and there is business also, but much of this is hidden among the pleasantries, sugar coated as it were.

Camera Craft joins in all good wishes towards this little publication and we hope to receive a copy of "The Exposure" each month.

Pictorial Photographers of America

The regular meeting of the P. P. A. took place on December fifth in the large assembly room of the new Art Center, 65 East Fifty-sixth Street, New York. A large number of members were present. Mr. Jerry D. Drew presided and told us a lot of good things about the coming 1922 Annual, which edition even is hoped to surpass the large sale of this year's book. The subject of the evening was "Winter Scenes and Marines." There was a large exhibit of members' work upon the walls appropriately illustrating these two subjects. We were very fortunate in obtaining as the speaker of the evening, Mr. William H. Zerbe, the well-known photographic authority, who gave us a very interesting and valuable talk upon snow pictures and marine work, incidentally bringing in many anecdotes connected with his vocation as a staff photographer on one of our city's large dailies. New members are coming in rapidly and all in all, our society is in excellent shape.

CLUB NEWS AND NOTES

Portland Camera Club

The annual exhibition of the Portland Camera Club, Photographic Section of the Portland Society of Art, Portland, Maine, will take place as usual next spring, March 3rd to April 2nd, 1922.

The closing date for entries has been set for February 15th. The exhibition committee looks for a bigger and a better Salon this year than ever before, and have every reason to believe the quality will be even higher.

The Portland Salon has never endeavored to compete in quantity with other exhibitions, but it aims to show work of the highest merit and worthy of the position this Club has always held in pictorial photography.

Doings at Los Angeles

Reports from the Toronto Salon have now been in for some time, and the members of the Southern California Camera Club are indeed pleased with their showing. Ten members were successful in getting their prints hung, and the total number of prints accepted were thirty. Unfortunately, there was a slight error in the printing of the catalog, and a number of the local members were credited with belonging to the California Camera Club. This is indeed to be regretted, as the two are entirely different organizations.

On Thursday evening, October twentieth, the Club held their first annual banquet at the Paulais Cafe. The affair, although the first attempt of the kind by the club, was most successful, and many of those present asserted that they would like to make it a semi-annual affair. Following the dinner a number of musical selections were given by Mr. Ridderhof and other members. The main event on the program was an exhibition of lantern slides (autochromes and scientific subjects, by Mr. S. J. Keese. Otis Williams, that well known artist-photographer, entertained with an interpretive dance, entitled "The Clown Dance."

Newark Camera Club

The Ground Glass, this Club's monthly folder, has the following interesting information:

Once again the Newark Camera Club shows its mettle by the decision of the

members Monday evening, October 10th, to purchase a home of their own. Of course, the eighty-odd members present at the time fully appreciate the advantageous location and property selected by the committee, which accounts for the 100 per cent enthusiasm. While enthusiasm is a prime factor in the world of success, it also requires action and participation by our entire membership, if the proposition is to be put over in true N. C. C. style.

Three years ago a "handful of wilful men" made our present spacious quarters possible. The Pessimists said then, "It can't be done." The Optimists said "It can," and the Peptomists said nothing and did it. Today we find the Optimists and Peptomists in the majority. Many members are unfortunate in that they find it impossible, at times, to attend meetings. This, however, does not prevent those who have the proper club spirit from sending in to the committee their subscriptions toward the Building Fund. Every member should own at least one Certificate of Subscription, which are to be non-interest bearing and issued in denominations of twenty-five dollars.

In our computations which led us to believe we can own our own home, we figured on You. If we have miscalculated, it simply means that some one else must do more than his share. As President Boyle so aptly puts it, "We have the will to do and the courage to dare."

If the plans of the committee go through, Your new home will be on a pleasant street not 300 feet from Broad street and near our present location. It will be a three-story and English type basement brick building with northern and southern exposures. The basement will contain kitchen and Steward's quarters, the first floor will be the Meeting, Exhibition, Library and Cloak Room, on the second floor we will have Work Rooms, and on the third the Projection Rooms and Studio. It will be Your club and we want You to own part of it.

We're bound for the New Home. Don't just Think of It, but in the language that is more to the point than poetical, "Come Across."

OUR BOOK SHELVES

Essentials of Advertising

The science of advertising has come to hold an interest that is almost as romantic as practical. The billions of dollars spent annually in exploitation, the variety of ways, their novelty, the diversity of means and methods, all hold a charm for the casual reader, which, if less applicable to his daily use than to that of the man of business, is still quite real.

A book on advertising, in the degree to which it qualifies to such a status, therefore may be accepted as literature. "Essentials of Advertising" is first of all a remarkable work as embodying so much that is essential within its bounds. The three hundred and twenty-two pages teem with instructive and constructive information. This material is logically arranged and much of it, if not actually new, presents new viewpoints and deductions. It will in this way prove valuable to men who advertise, to men who do not but should, and most of all to men who do advertise and should not. Its comprehensiveness may be gathered from the fact that even advertising, salesmanship and proof-reading are covered. There is a very complete bibliography for such as would delve deeper into the subject.

To photographers the part devoted to "Illustrated Advertising" will make a special and definite plea. The instruction condensed into this long chapter would make a handbook for camera-men which is worth the price of the book.

Moreover all is put into good English and the author has the rare faculty of being interesting as well as learned in his specialty. The illustrations are apt, and all in all, we can heartily recommend the book to all our readers.—S. B.

Essentials of Advertising by Frank Leroy Blanchard, formerly Managing Editor

of Printers Ink—price \$3.00. Published by McGraw-Hill Book Co., Inc., Penn. Terminal Building, 370 Seventh Avenue, New York.

Better Advertising

By John M. Manly and John A. Powell.

At least one of the authors brings a training in Arts and Letters to bear on the subject in hand and both seem sincere and earnest in putting all that is possible and most of what is essential in small space. In fact the preface states that the object of the authors has been to make their information available to busy people who have other duties in conjunction with those of handling publicity.

It is a convenient handbook, easily slipped into the pocket and if the reader gets from it nothing more than an ambition to study deeper on the subject, he will be well repaid by reading the little volume.

Paper, type, illustrations and binding are all to be commended. The package is a small one but it is as full of meat as a fresh laid egg. 157 pages. Price, \$1.50. Published by Frederick J. Drake & Co., Chicago, Ill.

Brewer Corcoran—By Himself

I started to make the city of Springfield, Massachusetts, famous in the year 1877, A. D., by being born there, but, up to date, appear to have let it go at that. At an early age a whole hearted attempt was inaugurated to raise the standard of the public schools through example, but it is pleasant to be able to state that the educational system of the municipality survived. Having exhausted the full possibilities of the kindergarten, the primary and grammar schools were attacked, but the action seems to have gone down in history as a stalemate. The high school next came under fire, but, after a short, sharp engagement, the firing line was transfer-

OUR BOOK SHELVES

red to St. Paul's School at Concord, New Hampshire, where I put in three years raising the already high standard. Williams College next attracted my hunger for knowledge and there I succeeded in becoming a member of the Delta Psi Fraternity and did a few classic bits for the collegiate publications.

It becoming necessary to do something fairly useful, I hired out as a cub reporter to the Springfield Republican and during the next thirteen years managed to hold down various desks including that of dramatic critic for seven years. Becoming weary of dealing with facts, I quit the game in 1913 and started in to push a pencil for a million miles. My first book, "The Bantam," was published that fall, together with my first short stories for boys. Six books have followed and a good many short stories. The books are "The Road to Le Reve," "The Barbarian," "The Boy Scouts of Kendalville," "The Boy Scouts of the Wolf Patrol," and "The Princess Naida," all published by The Page Company, Boston. The short stories have been published by The Youth's Company, Boys' Life and St. Nicholas.

During the war I was captain in the Military Intelligence Division of the General Staff and did not get off the Washington front. I was married in 1901 to Miss Carolyn Upson of Thompsonville, Conn., and we have on daughter who holds the unique record of having read everything I have written. I am a member of a number of clubs and things. I'd rather go fishing than write fiction. I spend my summers watching the tide come into and go out of Vineyard Haven harbor and get my exercise in that way. I have played various games at various periods of my existence, am over-fond of baseball, but for healthful exercise prefer bridge. I still continue to live in Springfield where I have a few friends left.

The American Annual of Photography, 1922

For thirty-six years this old friend has made its annual bid for popularity. During which time a host of photographers have gleaned from its well filled pages, for it has more than survived a generation.

The American Annual of Photography for 1922, may now be secured from all dealers. It is ready to take its place on the shelves alongside many others. It will keep you in touch with the photographic doings of this past year and like the other volumes, it marks another milestone to photographic progress.

The present volume contains a variety of articles of interest and any photographic reader will find some subject of particular appeal to him. What is your fancy? A. H. Beardsley has a very readable article entitled, "Soft-Focus vs. Anastigmat Lenses." When you have read it you will probably conclude "the man behind" still counts. There is an excellent article on "Kallitype," by that veteran worker, James Thomson. Many will want to refresh their memories on this process. There are two reproductions of flower subjects made from kallitype prints which are as good as could be done on any paper. Chas. H. Partington writes on "Bromoil Results," this subject is equally well handled and we believe any new worker in this beautiful process will gather some practical information by a careful reading of Mr. Partington's directions.

"Taking the Dark Out of the Dark-room," by August Krug, should be read by anyone owning that old fashioned place. This is different and there are diagrams to show just what one should do to make the dark-room comfortable to work in. William Alexander Alcock, LL.B., writes on "The Bromide Print—A Means Not an End." This contribution has the merit of giving us something to think about, it is very interesting. "The Optics and Mechanics of Enlarging," by A. Lockett. Here is an article that should prove of great use to the photographer. "The Multiple Gum Process," by Francis Orville Libby, a well known figure in the various photographic salons, who can speak authoritatively on the subject. Comparatively few amateurs escape the gum process.

American Annual Formulary will by many, be considered the most valuable part of the book. American Annual of Photography, 1922, price \$1.75, 'Photography, Inc., 57 East Ninth St., New York.

INTERNATIONAL PHOTOGRAPHIC ASSOCIATION

Stereoscopic Division

To Members of I. P. A.:

Noting in the November issue of Camera Craft my appointment as Director of this division, it is my intention to do all I can to make this most fascinating branch of photography of real interest to those members who elect to join us.

About the 15th of January, 1922, a set of stereo slides will be ready to begin its rounds. I have written to those interested to send in their slides for this set and have already received some responses. No doubt there are some members of I. P. A. whom I have not reached, and who would enjoy these pictures. I would urge those members to send in their contributions at once. Those not having proper mounts should forward the prints, these will be transposed and suitably mounted for them. All prints forwarded should bear the number and the name of the sender, and do not forget to place the title of the picture thereon.

When complete, this set of stereoscopic pictures will be placed in a special mailing case and then routed under the same rules that prevail with our circulating albums. I shall be pleased to receive any suggestions from our members calculated to improve the service.

Fraternally yours,

LOVIC MEREDITH,

Ruppertown, Tenn.

Director Stereo Division.

STATE SECRETARIES

California—A. E. Davies, 1327 Grove St., Berkeley.
Colorado—H. E. High, 1023 Champa St., Denver.
Idaho—Eugene Clifford, 902 9th Ave., Lewiston.
Iowa—Harry B. Nolte, Alcona.
Kansas—H. H. Gill, Hays City.
Louisiana—Samuel F. Lawrence, 1247 Oakland rect, Shreveport.

Mississippi—George W. Askew, Jr., 211 34th Ave.,
Bos.—J. F. Peters, Room 408, Union Station,

Ill.—Louis R. Murray, 927 Ford Street,

Mont.—F. L. Derby, La Fayette.

ALBUM DIRECTORS

Alabama—Richard Hines, Jr., Barton Academy Bldg., Mobile.
Canada—C. Deyo, 268 Dundas St., London, Ontario.
Colorado—O. E. Aultman, Pleased Bldg., Trinidad.
Connecticut—Harry E. Carpenter, 389 Remington Ave., Bridgeport.
Florida—Capt. E. S. Coutant, Lock Box 73, Stuart.
Georgia—L. O. Surlis, P. O. Box 434, Cuthbert.
Idaho—Eugene Clifford, 902 9th Ave., Lewiston.
Illinois—George A. Price, Box 286, Champaign.
Iowa—C. W. Parker, Mapleton.
Massachusetts—John Mardon, 10 High St., Boston.
Michigan—W. E. Ziegenfuss, M. D., 171 Richton St., Detroit.
Minnesota—Leonard A. Williams, 622 2nd Avenue South, St. Cloud.
Mississippi—George W. Askew, Jr., 211 34th Ave., Meridian.
Missouri—Wharton Schooler, R. F. D. No. 2, Eolia.
New York—Charles F. Rice, P. O. Box 517, Marmonneck.
North Dakota—Jas. A. Van Kleeck, 619 Second Ave., North Fargo.
Ohio—J. H. Winchell, R. F. D. No. 2 Painesville.
Pennsylvania—L. A. Sneary, 2822 Espy Ave., Pittsburgh.
South Dakota—C. B. Bolles, L. B. 351, Aberdeen.
Texas—J. B. Oheim, P. O. Drawer M, Henrietta.
Utah—John C. Swenson, A. B., Provo.
West Virginia—William E. Monroe, Box 298, Point Pleasant.

RENEWALS

2077—Wm. G. Richter, 415 S. La Fayette St., South Bend, Ind.
Hand colored flowers, river and general scenes; for anything of interest. Would like to hear from foreign members especially. I desire to exchange only post cards. Class 1.
3254—Vernon W. Hutchins, 39 Academy Square, Laconia, N. H.
Class 2.
3324—Henry Scholz, 5656 Blakemore St., Germantown, Pa.
3 $\frac{1}{4}$ x4 $\frac{1}{4}$, 3 $\frac{1}{4}$ x5 $\frac{1}{2}$, 4x5, 5x7 on Velox of landscape, historical, flowers, and about 200 war scenes taken in France on the front lines; for the same. Only extra good work sent out and accepted. Class 1.
3523—E. Wesley Lidaker, 1817 La Salle St., St. Louis, Mo.
3958—Orrin Dudley, 211 E. St., San Rafael, Cal.
Class 2.
4475—Branson De Cou, 213 William St., East Orange, N. J.
4618—J. E. Dow, R. F. D. 2, Big Sandy, Texas.
Class 2.
4634—Chas. E. Fenton, 203 Copster Hill Road, Oldham, Lancs, England.
4849—J. P. Graham, 823 Nob Hill Ave., Seattle, Washington.
2 $\frac{1}{4}$ x3 $\frac{3}{4}$ (camera fitted with a Ic Tessar 4.5 lens) of sailing vessels, steamships, and general marine views; for anything of interest from anywhere. Good work sent out and expected. Class 1.
4861—Verne Sabin, 320 So. 3rd St., Union City, Tenn.
4930—Guy W. Butler, Calais, Maine. (Formerly of Milltown, Me.)

INTERNATIONAL PHOTOGRAPHIC ASSOCIATION

- 4977—H. G. Hoyes, Box 135, Castleford, Idaho.
 5007—Alexander van Dam, 16 Yamamoto-dori, 4-Chome, Kobe, Japan.
 Post card on Bromide portraying life, customs, etc., of Japan; for general ideas about home, favored enjoyments, sports, etc., of the persons with whom I exchange. Class 1.
 5027—I. L. Mellott, Box 256, Atkinson, Ill.
 2½x3¼ up to 4x5 on developing, of Great Lakes scenery and bathing beach beauties; for the same. Class 1.
 337X Leonard P. Page, 71 Meridian St., East Boston 28, Mass.
 Interested in titled post cards or 5x7 glossy prints of American Legion Activities, local points of interest. Class 1.
 654—H. E. High, 1023 Champa St., Denver, Colo.
 4x6 developing paper and post cards of mountain scenery, Yellowstone Park views, machinery, etc. Good work only. Class 1.
 2482—John W. Kimball, Windsor, Vt.
 Class 2.
 2984—C. M. Seymour, 346 Park Road, West Hartford, Conn.
 3¼x4¼, up to 5x7, of scenic, genre, pictorial character sketches and children; for anything good, children especially and genre. Class 1.
 4240—John Stimpf, care of Alexander Hamilton Inst., 13 Astor Place, N. Y.
 2½x3¼ and 2½x4¼ on Azo and Cyko of pictures of general interest; for the same. Class 1.
 4363—Jonathan T. Welsh, 50 Fort Greene Place, Brooklyn, N. Y.
 Class 3.
 4426—Earl A. Newhall, R. F. D., Route 2, Shelburne Falls, Mass.
 4654—H. A. Latta, P. O. Box 305, Hickory, N. C.
 Class 2.
 4718—T. G. Duval, Room 905 Los Angeles Ry. Bldg., Los Angeles, Cal.
 3¼x4¼ and 4x5 of animals, park scenes, landscapes and old mission; for animals, birds and historical subjects. Class 1.
 4725—Rev. W. H. Dickinson, General Delivery, Fairfield, Iowa.
 3¼x5½ and smaller, —mostly glossy of miscellaneous—great variety; for geology studies and anything of interest. Class 1.
 4818—Simon Miller, P. O. Box 229, Archbald, Pa.
 Class 2.
 4849—J. P. Graham, 823 Nob Hill, Seattle, Wash.
 2¼x3¼ Cyko and glossy of landscapes, steamships, sailing vessels and general views; for anything that is good. Class 1.
 4880—Y. Takase, P. O. Box 37, Petersburg, Alaska.
 4x5 and 3¼x5½ Azo and Velox of miscellaneous for landscape or anything of interest. Class 1.
 5040—Wm. H. Walton, 139 E. 9th Ave., Homestead, Pennsylvania.
 2½x4¼ of general views; for large fires over the country. Would appreciate photos from Denver, Colo. Will try and accommodate anyone desiring pictures from Pittsburgh, Pa. Class 1.
- CHANGE OF ADDRESS.
 4975—Harry B. Bradley, 3892 17th St., San Francisco, Calif.
 Class 2. (Was 188 Loma Alta St., Los Gatos, Cal.)
- NEW MEMBERS
 5044—Dr. Miles J. Breuer, 216 Security Mutual Bldg., Lincoln, Nebr.
 2¼x3¼, 4x5 and enlargements. D. O. P. of pictorial, genre, children, military and French pictures; for pictorial, genre, or anything that shows care and brains. Class 1.
 5045—Elmore Minette, 1341 West 77th St., Los Angeles, Cal.
 2½x4¼ Velox Special of mountain and beach scenes, city views and movie actors; for general views, foreign preferred. Class 1.
 5046—Percy H. Herbert, 9th Aero Squadron, Mather Field, Sacramento, Cal.
 Class 2.
 5047—W. L. Haemer, 104 E. 25th St., New York, N. Y.
 5x7 and 6½x8½ Cyko, Azo and Mimosa of general; for the same. I desire to exchange only post cards. Class 1.
- 5048—S. C. Simons, Waialeale, Hawaii.
 Class 2.
 5049—Geo. Wellington, P. O. Box 2126, Bridgeport, Connecticut.
 2½x4¼ of marines and landscapes; for landscapes and animal life. Class 1.
 5050—John P. Ribinson, Box 8, Raton, New Mexico.
 4x5 of scenes and buildings of New Mexico, railroad subjects, etc.; for anything of general interest. Class 1.
 5051—W. M. Petteys, P. O. Box 265, Tillamook, Oregon.
 4x6, 5x7, 6½x8½, 7x10 and 8x10 Artura, Azo and Cyko of portrait, landscapes, seascapes and genre; for anything of interest. Class 1.
 5052—Claude C. Guilfoyle, Rural Route, Harvard, Michigan.
 1½x2½ glossy Azo of curiosities, camera tricks, etc., for the same and genre. Class 1.
 5053—Robert P. Brooks, 718 Carwell Ave., Baltimore, Md.
 2½x4¼ and 3¼x4¼ Azo Glossy of landscapes, street scenes and portraits; for landscapes and travel. Class 1.
 5054—Royal F. French, M. D., Marshalltown, Iowa.
 I desire to exchange only lantern slides.. Class 2.
 5055—Arch. P. Johnston, Montgomery, Ohio.
 Class 2.
 5056—Ralph Sering, 526 Fifth Ave., Moline, Ill.
 5x7 Azo and Artura of events, such as wrecks, fires, accidents, and general run of newspaper photos; for landscapes and interesting views of scenic value and genre. Class 1.
 5058—May S. Keator, 456 Oak St., Webster Groves, St. Louis, Mo.
 Class 3.
 5059—W. Beuthel, 832 R St., Fresno, Cal.
 3¼x5½ and tseroe of a variety of subjects made in California; for stereo prints of general interest. I desire to exchange only stereo prints. Class 1.
 5060—Thomas F. Howell, 1324 N. Dearborn St., Chicago, Ill.
 Class 2.
 5061—Carl Kruger, 1753 Ottawa St, Regina, Sask. Canada
 Class 2.
 5063—Ralph Tuttle, R F D 2, Pomeroy, Wash
 5x7 and smaller D O P and semi-matte of Snake river bluffs, harvest scenes and scenes on cattle range; for tropical scenes and scenes of historical interest (Have worked in professional studio and do good work.) Class 1.
 5064—Hans Hansen, Rubicon Lodge, Lake Tahoe, California.
 5x7 and 6¼x8½; for landscapes, and marine views. Class 1.
 5065—F. W. Kostenbader, 812 Lexington Ave., New York, N. Y.
 Class 2.
 5066—Lee C. Davis, Pittsburg, Cal.
 5x7 and post cards, Artura, Velox and Azo of park scenes, marines, and portraits; for battle ships, views of lakes, canyons and waterfalls. Class 1.
 5067—F. A. King, 85 Church St., Charleston, S. C.
 Class 3.
 5068—Frederick B. Harris, 16 Taylor Ave., So. Norwalk, Conn.
 2¼x3¼ and 4x5 of landscapes; for landscapes and marines. I desire to exchange only high grade work. Class 1.
 5069—Otto Nelson, Early Intake, via Groveland, California.
 Class 3.
 5070—Frank Mlinarik, 3024 So. Harding Ave., Chicago, Ill.
 9x12 and 3¼x4¼ of city and marine views; for chiefly views and interesting events. Class 1.
 5071—Charles J. Noronha, 224 Vito Cruz, Manila, P. I.
 3¼x5½ of ethnological studies and Philippine views; for ethnological studies, accompanied by full descriptions. Class 1.
 5072—M. B. Brower, Southern School of Photography, McMinnville, Tenn.
 Class 2.

NOTES AND COMMENT

A Department Devoted to the Interests of our Advertisers and Friends
In it will be found much that is new and of Interest

While the notices under this heading are strictly in the nature of information and news for the benefit of the reader, and are neither paid for nor actuated by our advertisers, we are compelled by the Postal Laws to mark them as follows:—Advertisement.

Reported by Wm. Wolff

Mr. Bertrand is wintering in Modesto.

Frank Robinson of Merced is very busy with commercial work.

Mr. and Mrs. P. V. Cole have a half interest in the Parks Studio, Fresno. Mrs. Cole was Mrs. Windom, who had a studio in Modesto and Turlock. Their holiday business was very big.

Laval Co., Fresno, have added another Northern light to the already complete equipment.

Frank Beck of Fresno reports good holiday trade.

W. Bicknell and wife are running the Rembrandt Studio in Stockton and are doing nicely.

Nathan Rennan of Stockton is getting fat, yes, both ways—bank account and otherwise.

Logan Studio of Stockton had an extra crew during the holidays.

Meet the future postmaster of Sacramento, H. J. McCurry.

Victor A. Ulrich, formerly of Marsh & Co., is now with Bauer's Studio, 165 Post Street, for the holidays and may possibly remain with them.

"Wellcome" Photographic Exposure Calculator, Handbook and Diary, 1922

Every year sees some advance in the "Wellcome" Photographic Exposure Calculator, Handbook and Diary, impossible as this may seem to those who have for years appreciated what a wonderful storehouse of accurate, condensed information this book has been.

This year the improved calculator, introduced in the 1921 edition is retained. So ingeniously is this little instrument con-

trived that by one turn of one scale we are told the correct exposure, at any time of day, with any light, in any part of the world, with any plate or film and at any stop, for all average foreground subjects out-of-doors and for portraits in a well lighted room. For other subjects from clouds to dark interiors or even for flash-light photographs, interiors by artificial light and night subjects out-of-doors, a second turn of the scale or a glance at a special table is sufficient.

A new feature is that in one table we are now told not only the exposure speed of over 200 different plates and films, but also the speed at which they develop. This table enables us not only to expose with scientific accuracy, but tells us exactly how long each plate ought to be developed.

This book has done as much as, if not more than, any other publication to make successful photography not only easy, but scientifically accurate.

A new feature is the chapter on "Selling Photographs for Reproduction," and here, as elsewhere in the book, the essential information, without padding, is condensed yet informative.

Another new item is the table giving the fluid contents of the chief makes of developing tanks and machines which, combined with the time tables for tank development, will be of the greatest service to those who adopt this scientific method of developing their plates or films.

The reliance placed on the materials and methods advocated by Burroughs Wellcome & Co., by those who have to do photography under the most difficult circumstances is shown by the illustrations which include a photograph taken on Sir Ernest Shackleton's Antarctic Expedition, 1914,

NOTES AND COMMENT

and an instantaneous photograph of a gull alighting on its nest—a prize-winning result obtained by the use of a "Tabloid" Developer 14 years old.

As usual three editions are issued: Northern Hemisphere and Tropics, Southern Hemisphere and Tropics, United States Edition.—Advertisement.

A Market for Pictures

Recently our attention was drawn to the announcement of the Pictorial News Service, 215 W. 11th Ave., Denver, Colo., whose advertisement appears on another page. Readers desirous of finding a market for prints should address the above company for their new list.

The number of pictures used by the various publishers have now grown to such enormous proportions it has necessitated the systematic collection of them from all over the world.—Advertisement.

A Reflex Camera

The New York Camera Exchange has something out of the ordinary to offer its patrons for the coming season. This is no less than a Reflex Camera, the product of a large European factory, for the remarkable price of \$13.50. The picture this camera makes is $2\frac{1}{2} \times 2\frac{1}{4}$, it uses the regular No. 1 Brownie film.

If these advertisers were a new concern readers might question the above proposition, but this company was established 31 years ago and they have long occupied space in Camera Craft, all this means something. And we are reminded by them, they stand back of all the cameras they sell.

Any one desiring to take up photography and not wishing to invest much would do well to look into this offer. Also those who contemplate buying a small camera will find this subject of interest to them. Look up the advertisement of the New York Camera Exchange on another page of this issue and in that advertisement you will glean more particulars, also note a few specials.—Advertisement.

Dad for All!

Daddy Lively, who is even better known than W. S. Lively, president of

The Southern School of Photography, McMinnville, Tenn., has sent us a little badge as souvenir.

This badge consists of a silver button with lettering on its margins and a silhouette portrait of Daddy himself in the center. All the engraving is done in black enamel, it is most effective upon the silver ground. The present student body are the originators of the design. It bears on the face of it at the top, "All for Dad," and at the bottom, "Dad for All." On the left side, reading downwards, appear the school initials, S. S. P. and on the right is the date the school was established, 1904.

Daddy Lively said, in his letter to us, "In order that my students of different years may meet and become acquainted when attending the P. A. of A. (which I strongly urge each class to become a member of and attend its annual conventions), I have made a button or badge for them to use which will not only make them know each other but will make them known to the profession.

Daddy Lively wishes to send one of these buttons to each of his past students who write for it. The addresses of many of them are not known to him now.

Camera Craft is very glad to give this publicity to oblige an old friend and we trust it will bring all together.

1000 Films Daily

Those in the photographic finishing business will be interested to know that only 24 gallons of developer and the Perfection Developing Tank System were required to accomplish this feat. This System turned out better work, with less labor and yielded more profits.

The Northern Photo Supply Co., of Minneapolis, Minn., have an announcement to the trade in this issue. If in search of more efficient methods for one's plant, or if contemplating the start of a new business, the interested reader owes it to himself to become familiar with this time and developer saving system. The Northern Photo Supply Co. will be glad to furnish all particulars to interested parties.—Advertisement.

CAMERA CRAFT

Patents Issued in July

- 1383305 Photographic Exposure Mechanism. D. M. Hurlburt.
- 1383352 Electric Blue Printing Machine. J. M. Wagenhurst.
- 1383395 Photographic Exposing Apparatus. W. M. Folmer.
- 1383460 Color Photography. W. Friesengreen.
- 1383543 Photographic Apparatus. F. E. Ives.
- 1384528 Photographic Exposing Clock. C. Kesses.
- 1385365 Photographic Drying Machine. A. W. Dreyfoos.
- 1385476 Camera Shutter Control. B. F. Schmidt.
- 1385940 Method & Apparatus for Determining Photographic Exposures. V. I. Elliott.

Trademarks

None.

Patents Issued in August

- 1386262 Print Washing Tank. V. F. Haughton & J. P. Underwood.
- 1386703 Photographic Camera. J. S. Green.
- 1386771 Picture Mounting Device. A. W. Engel.
- 1386909 Retouching Machine. O. S. Teale.
- 1386910 Retouching Machine. O. S. Teale.
- 1387457 Automatic Focusing Device for Cameras. J. A. DeBouzek.
- 1388870 Camera. A. E. Lipp.
- 1389164 Back Lock for Cameras. A. H. Roijker.
- 1389268 Photographic Proof Box. C. L. Parks.

Trademarks

- 145308 Photographic Typewriters. American Desatype Company, New York City.
- 145377 Camera Lenses. Hanovia Chemical & Manufacturing Co., Newark, N. J.
- 145702 Photographic Developers. Johnson & Son, London, Eng.





CAMERA CRAFT

A Photographic Monthly

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THE "ANGELUS" ROSE
By ARTHUR L. BUNDY

CAMERA

CRAFT



A PHOTOGRAPHIC MONTHLY

H. D'ARCY POWER, M. D.
Editor-in-Chief

CLAUS SPRECKELS BLDG.

SAN FRANCISCO

EDGAR FELLOES,
Associate Editor
CALIFORNIA

VOL. XXIX

FEBRUARY, 1922

No. 2

Fifth International Salon of The Camera Pictorialists of Los Angeles

By James N. Doolittle



Regardless of the influence to which the movement may be due, it is a noteworthy fact that photographic exhibitions in this country are annually becoming more popular.

Perhaps it is a repudiation of the widespread depression incident to the present period of reconstruction, but it appears that art—photographic art, at least—is undergoing a renaissance.

Six or seven years ago there was practically but one organization in this country presenting an annual Salon that claimed even national participation, while today there are at least four that are established institutions of undoubted importance in the world of Pictorial Photography.

From year to year new names are steadily appearing in Salon catalogs; and, while it is true that familiar figures slowly drop from sight, one cannot fail to note a gratifying increase in the ranks of those who are finding an outlet for the expression of artistic ideals through the medium of the camera.

A protracted period of interrupted intercourse with foreign pictorialists and societies furnishes explanation for the fact that a truly International Salon has not been held in this country in recent years. Several efforts have been made, to be sure, and a limited representation has been secured from

CAMERA CRAFT

English workers, who have, despite pressure of matters of greater momentary importance, rigorous censorship and customs complications, found it possible to send their work to us.

It is, therefore, with a feeling akin to triumph that the Camera Pictorialists of Los Angeles opened their Fifth Annual Salon of Photography, in December, with a representation from eleven foreign countries and most enthusiastic participation by American photographers.

From the inception of the organization in 1916 the Camera Pictorialists have proceeded with but one goal: that of holding an annual Salon which would bring to Southern California the best of the world's work in Pictorial Photography during which interval they have harbored the conviction that results commensurate with their ideals could not be obtained without the establishment of the highest possible standards and a tenacious adherence to that aim.

This statement raises a point and courts an explanation of just what constitutes a high standard of excellence in pictorial photography. Technical qualities may be accurately judged by any photographer of experience. There is a definite basis upon which to gauge technique—mechanics of production, if you will—but a consideration of pictorial merit demands more; just what and how much more I cannot attempt to say, the value of a picture being based largely upon appeal to the individual. This fact has been proven to our own satisfaction on innumerable occasions when, as an example, we have enjoyed favorable comment upon prints in one exhibition which have been rejected by another.

The Camera Pictorialists essayed to solve a difficulty in the selection of a jury, two of whom were Pictorialists of prominence and technicians of unquestionable accomplishment. The third member, an artist of national repute, completed a trio that has proven itself capable of the nicest discrimination in consideration of every point, technical as well as pictorial, and their judgment was qualified by only three considerations. They were instructed by the Salon Committee to select approximately one hundred and fifty prints, to exercise no discrimination as to medium and to reject any subject that did not represent the best possible technical execution in that particular medium.

That the jury, Messrs. Dana Bartlett, Karl Struss and Edward Weston, were unable to confine their selection to as few as one hundred and fifty from the one thousand prints submitted, but found that there were some thirty more that could not be rejected without a decided loss to the Exhibition, is sufficient indication of the merit of this year's contribution.

The establishment of a limit to the number of accepted prints is an innovation in this year's Salon and is the result of the observation that the customary method of hanging prints caused too great a crowding upon the walls, to the detriment of the individual photograph and the appearance of the show as a whole.

While exhibitions are not held merely for the sake of the mural decoration of our art galleries, it must be remembered that the method of pre-

LOS ANGELES SALON, 1922



"BABY AND THE PROBLEM
OF THE APPLE"

By MARCUS ADAMS
London, England

CAMERA CRAFT

sensation represents a strong factor in courting public attention. Improperly displayed merchandise will never sell itself, regardless of value. Although the committee was offered facilities for hanging even a larger show than last year, it was assumed—and correctly—that a smaller showing would make for closer discrimination in selection and obviate the common error of presenting more material than an interested public cares to examine.

It is a curious, but interesting fact, that the number of foreign and American prints is equally divided, although this fact was not disclosed until the completion of the catalog.

FOREIGN GROUP

Landscapes dominate the English work, in point of numbers, this year, but the portraits by Yvonne Park, Marcus Adams, Bertram Park and Herbert Lambert are of outstanding importance. Although bromide prints are greatly in the minority in the foreign group, these four artists have presented portraits that defy speculation as to whether they could have been more perfectly represented in another medium. Of Mr. Lambert's three, "Young England" and "Childhood" are not only superb examples of portraiture, but are executed with a delightful delicacy. His portrait of "Kenelm Foss" is the sole example of foreign work that suggest the use of the diffused focus lens. Lacking definite information, I am pleased to assume that Marcus Adams specializes in child portraiture, for his three subjects suggest a mastery of the power to depict character in little ones that is too often merely the result of the happy chance of "catching" them when they happen to register an engaging smile as though "watching the little birdie." I recall with not a little delight a similarly interesting group which he exhibited here in the First Salon.

While I endeavor to avoid dwelling upon technical details, I find it impossible to mention the work of Yvonne Park without reference to the subtle delicacy with which the flesh tones in each of her three subjects have been treated. It would be incongruous indeed if subjects so skillfully handled were not perfect in the merest detail. "Etude" is the most interesting of a group that furnishes the only examples of photography of the nude in the Salon.

Bertram Park brings us near to people of prominence — interesting enough in itself were we not compelled to admire the prints for what they represent pictorially.

Miss Gladys Cooper in "The Betrothal" is the only example of classical adaptation in the foreign collection.

Widely different in character, but compelling attention on the common ground of technique, are two groups, the works of Harold J. Leighton and Fred Judge. It would be an injustice to remotely intimate any effort on the part of either worker to strive for an effect that belongs to another art, so it is without fear of misinterpretation that I liken the work of Mr. Leighton to that of the wood cut. Bold in mass, yet rich in essential detail, they

LOS ANGELES SALON, 1922



"EVENING LIGHT"
(Multicolor Oil Transfer)
By FRED JUDGE HASTINGS
Hastings, England

CAMERA CRAFT

stamp the artist as master of an individual technique. Reduced to Monochrome the original charm of Fred Judge's "Evening Light" suffers deplorably, for it is a multicolor oil transfer which possesses the freshness and texture of a pastel although I turn to his "Return of the Flock" for an example of that which is somewhat more photographic and less spectacular.

"Mont St. Michel," by Frederick Evans, combines the charm and unchallenged beauty of the platinum print with the element of design in which a fragment of an arch is carried in shadow across the face of an edifice.

The photographic press in England has occasionally touched upon the matter of the somewhat "overdone" cathedral interiors, but here in California, where the oldest building hardly antedates western settlement of the country, by Americans, there is still much to admire in such subjects as H. R. Heath's "Early Morning, Ely Cathedral." Those of us who have seen these splendid edifices laid in ruins by modern engines of war are inclined to place additional value upon artistic records before time—if not man—has accomplished their destruction.

J. M. Whitehead might take amusement from a knowledge of the belief that has taken possession of those who have seen his work only in reproduced form, to the effect that he photographs only deserted windmills against a forbidding sky. I am as happy to dispel the delusion as I was to see at close range such of his work as "In a Land of Romance." Depending upon none of the "exalted" mediums he gives us, in a straight bromide print, all that seems essential in the establishment of atmosphere.

So much of this as refers to medium we might appropriately apply to H. Y. Summons, whose "Harmonies of Evening" carries not a little of the suggestion of Harmony of presentation.

The prints of Alex Keighley do not represent him as well as his collection exhibited in the First Salon, although this fact in no wise detracts from the present examples of his work. "Corpus Christi," a group in a religious ceremonial, is the best of his three subjects.

It has devolved upon D. Mischol to represent Switzerland with three highly interesting landscapes, the "Birch Tree" being an example of a happy application of medium in the expression of feeling, which, in this instance, is that of extreme cold. The artist has applied decorative treatment wherein the design of a snow-laden birch is carried in slanting shadows across the winter snows.

Denmark is represented by two prints, the work of J. J. Hoppe and Hans Waagoe. Mr. Hoppe's "Sunset at Hradchin" is what one usually terms a "straight" print wherein he has sought nothing that nature, in the calm splendor of sunset, has not put into his hands. "Tabor," by Mr. Waagoe, is a portrait, in low key, of Mrs. Edith Enna-Mathiesen, of the Royal Ballet, which, even though the beauty of the subject did not at once attract, would compel attention by skillful handling of values.

Dr. Henry B. Goodwin returns with three striking subjects in carbon which by the way, are the best examples of this type of print shown this year. A portrait of the artist's wife is reproduced.

LOS ANGELES SALON, 1922



"MRS. HENRY B. GOODWIN"
(Carbon)

By DR. HENRY B. GOODWIN
Stockholm, Sweden

CAMERA CRAFT

From Spain J. Oritz Echaque sends two quite different subjects, "Rino En La Ero," depicting an "affair of honor" in which the fair duellists are apparently indulging in a spirited hair-pulling match. The subject is hardly worthy of the work that Mr. Echaque seems to put into the production of his prints.

"El Cesó," by L. Huidobro of Madrid, offers an originality of conception that compels even the more conservative critics to reconcile only the partial inclusion of the head of one of the figures.

Quite the opposite of Henri Mallard's "Ruins" is C. E. Wakeford's "Burning Barge." Strangely, these two artists send from Sydney two subjects depicting a conflagration, one of which is treated in severely low key, while the latter is in lighter values. Stanley Entrope barely succeeds in convincing us in his "Storm Landscape" that the storm is not really quite remote—merely a misapplication of the title.

In considering the work from Germany, Austria and Holland I would dwell entirely upon the matter of process if in so doing I would not be guilty of neglecting the really superior character of pictorial excellence of the entire group.

The six splendid subjects by Dr. F. V. Spitzer of Vienna, representing prints in gum, bromoil, bromoil transfer and photogravure, are the outstanding feature of the exhibition, his portrait in photogravure of Gustav Klimt possessing extraordinary charm. Of only slightly lesser interest, although technically as perfect, is the Portrait of Franz Blei by Hugo Erfurth, also of Dresden. The portrait of Hans Thoma by the same artist is an eccentric character study in bromoil.

Mme. d'Ora shows three portraits of especially pleasing tone and quality, particularly as she chooses a developing paper as her medium. "The Lady in Fur"—a photogravure—is a departure and altogether the most interesting of this group.

The group submitted by Adolf Fritz and A. Niklilschek of Vienna, M. C. Schmitt of Berlin and Max Schiel of Leipzig are quite similar in type and represent a mastery in each instance of the oil transfer process. Pictorially it is difficult to indicate any one subject of outstanding importance, in saying which I confess my weakness for the admiration of tones and textures. They are of the highest order of pictorial merit—I trust the judges—but the pictorialist cannot easily pass them by without feeling that other mediums lack something essential that is present in these prints. Franz Holluber—Vienna—exhibits four which barely escape the same classification, but only because he treats a different class of subject. "November Nebel" is perhaps the most interesting of his offering.

A. S. Weinberg, Holland, exhibits the only carbons in the Central European group, two of which depict intimate scenes of home life. His "Refugees" is a truly noteworthy accomplishment.

LOS ANGELES SALON, 1922



"GROSSTADT MORGEN"
(Oil Transfer)
By A. NIKLITSCHKEK
Vienna, Austria

CAMERA CRAFT

AMERICAN GROUP

The work of the American pictorialists, as gauged by this year's contributions, lacks the uniform high quality that has heretofore characterized it, as a result of which this section is composed of "highlights" and "shadows" so that we find it practically dominated by a few.

Controlled processes now engaging the attention of our more prominent workers have, in the present instance, caused the bromide print to lose caste, although the three by Ford Sterling are examples of the possession of rare skill in interpretation of values wherein he has taken recourse to double toning with remarkable success. "Study in High Key" is the most interesting of his offering and draws comparison to the work of Arthur Kales whose high-key rendering, in bromoil transfer, of the portraits of Miss Marguerite de la Motte dominate the American portrait group. "Rhythm" is a forceful adaptation of photography to music and the dance. Miss Margrethe Mather provides a sensation in "Hands of Robelo," and an argument to the conservative.

The judges, Karl Struss and Edward Weston, upon invitation of the Salon Committee, each show a group of four platins. "The Ascent of Attic Angles" and "Poe-esque," by Mr. Weston, suggests the ultra-modern in conception, but do not inspire the "whither-are-we-drifting" question that has concerned the conservative during the last decade. In "Storm Clouds" Mr. Struss has provided a highly successful adaptation of the decorative in landscape which contrasts with these, though not in treatment, of "The Span, Twilight,"—a happily composed subject utilizing the graceful curve of the Manhattan bridge.

Suggestive of certain of the foreign works are the prints of Hamilton Revelle. "Under the Bridge" is a multicolor bromoil transfer, which relies no less upon subject matter than treatment and demonstrates the possibilities of application of color when introduced as accessory rather than motif.

In refutation of the assumption that the gum-bichromate process demands bold masses and broad treatment we have only to examine the prints of N. P. Moerdyke. "White Birches" is the most interesting of the three and is a tribute to the technical, no less than the pictorial, skill of the artist.

While it is doubtful whether the very small print is not at some advantage in an exhibition on account of the closer examination which it invites, there is no disappointment in the three prints of Dr. Chas. H. Jaeger. Printed upon tissue, they combine the exquisite charm of the etching with all the essentials of highly developed pictorial sense. "The Lute Player" is a departure from a style that we have long associated with the artist.

Whether art must always portray beauty, in its many forms, may provide the basis for considerable discussion, but John Hagemeyer answers it for himself, at least, in the presentation of "Decay." If it is merely a rendition of mass and values, a measure of success attends the effort; but

LOS ANGELES SALON, 1922



"MISS MARGUERITE DE LA MOTTE.
in the MARK OF ZORRO"
(Bromoil Transfer in Red Chalk)
By ARTHUR F. KALES
Hollywood, Calif.

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nature offers so much that is worthy of the best that I cannot reconcile the employment of this class of subject. "Immigrants" is different—and the best of his collection.

A study in mass is offered by Richard M. Coit in "Stair to the Gallery, St. Thomas Church," while the same motif in Arthur D. Chapman's "Chinese Lantern" is utilized in a decorative study in low key.

"The East River," by John Paul Edwards, is reminiscent of his work of about three years ago when he depended upon material much nearer his home. His present example is somewhat more imposing and full of the delightful quality that has long characterized his work.

Joseph Petrocelli and Dr. A. D. Chaffee show bromoils of exceptional merit although, in style, they are suggestive of the foreign rather than American influence. It is merely incidental perhaps that their subjects, too, are foreign indeed. "A Summer's Day," by Albert F. Snyder, a type of subject that seemed to enjoy a vogue some years ago, is a trifle devoid of the suggestion of creative effort, although it could be no mere chance that provided an appropriate setting for a well composed group.

Anne Brigman, who has deserted salons during the last four or five years, returns with three prints which show that she has not also deserted her art. "The Shadows on My Door," is the most interesting of her offering.

"Reflections," by Louis Fleckenstein, is a type of subject which has won commendation and depends not a little upon the suggestion of color which he has been able to create through the medium of double toning.

Joshua T. Westerberg in "Meditation" presents a subject that depends upon arrangement of rectangular forms, the presence of a slumbering kitten providing merely the motive for the title. Arrangement of line and mass forms the motif for "The Brothers," by John C. Stick. His landscape, "Top O' the Hills," is of the more conventional type of subject.


It might be mentioned in closing that this year's Salon, embodying a number of radical departures in the matter of selecting and hanging of prints, has given us the most successful Salon that has been held in this country. Attendance was far in excess of former years, and appreciation was manifest by all who visited the Museum of Science and Art during a month when holiday shopping generally supersedes all other considerations. The sale of prints exceeded all expectations and established the fact more potently than mere words that pictorial photography is at last gaining the recognition for which we have long labored. Already plans are taking form for next year's show which will mark even a greater progress.



LOS ANGELES SALON, 1922



"MISS GLADYS COOPER,
in Maeterlinck's THE BETROTHAL"
By BERTRAM PARK
London, England



Becoming a Professional

By Sigismund Blumann

Efficiency Engineer



The Amateur is one who does for the love of doing and who takes his pay in praise. In photography, for instance, he follows his own bent, making pictures as he best knows how, according to his own taste and after years of indiscriminate giving by a more or less intentional elimination establishes a clientele of recipients who admire his idiosyncrasies. The Salon prize is his goal and no such sordid conditions as dollar and cents returns besmire his pure enjoyment. It is ideal.

The friends who are presented with the output of the Amateur's studio must find some way to recompense the generous giver and this they do with praise—often sincere, sometimes deserved, and not infrequently, alas! insincere and unearned. This form of compensation seeks to conform to an ideal.

The Amateur has some mode of earning a living and to spare for photographic material. Plates, paper, chemicals are consumed without stint and no books are kept on the expenditure of time and material. It is pastime not business. Which also is ideal.

Photography is to the representative Amateur an aurora, a world of ideals with none but ideal environments and to him come a state of mind, as pertains to this subject that is purely idealistic.

Ideals are lovely. Would that life were made of nothing else and that existence could endure upon them alone. But on this very material earth where we must eat and be materialistic to conform to the exigencies of Nature the Ideal is only lovely and not at all nourishing. It may be said to be the flower on a plant whose roots are firmly embedded in the soil.

The Professional however he loves his art, and whatever his idiosyncrasies must practice a profession in a way that shall make it support him and itself. His own ideas are less to be considered than the ideas of those from whom he expects to get paid in real money. Nor need he degenerate in character or art in so doing for if he will consider every dollar an award of merit and every gold coin a medal, he may deduce that these are real prizes given by sincere judges who have sacrificed something more substantial than praise in attesting their admiration.

The Professional will have to do some shrewd figuring at the very start. He is now entering a business with ideals that are not abstracts but concrete. Business calls for investment. And what we term investment may be in study, talent and ability; or equipment, furnishings and advertising; or all in varying quantities. He will have to figure on material and

BECOMING A PROFESSIONAL

time as a matter of book-keeping, and he can never make a better beginning than at the very start of his career. Each plate exposed, each hour given should bring so much in dollars and cents. Failing to do so it must be entered as loss. Losses never fed a man.

But there is more, much more to consider. As one cannot fish for Tuna with minnow hooks or play golf with a rattan cane, so it is impossible to bid for a fifty dollar trade with a ten dollar equipment. The people who have fifty dollars to spare for a dozen photographs are accustomed to and expect luxuriant surroundings. The fifty dollars a dozen covers the entrance, the reception room and the equipment in detail, and of course the work.

We have heard of the genius who by his transcendent gifts is able to bring royalty to his garret and Thoreau has said that people will make a beaten path to the door of him who can make even a mouse-trap better than anyone else in the world, though that mouse-trap maker live in the deep forest. These are nice as literature but the royal suppliant who seeks the genius in the attic and the crowds who make the path through the forest must be in the direst specific need of what they can find there and in no other place. Personally, I cannot conceive of needing a mouse-trap so badly.

And let this sink in deep: Be assured that you are a superlative genius or the one greatest mouse-trap maker, else you may wait long and die of the waiting for the royal visitor or the anxious mouse-trap buying multitude.

Other things being equal, you and I will find soonest the genius who lives in comfortable quarters, amidst attractive surroundings and we shall find the wire-goods first just around the corner on the ground floor. There is something more in this than the mere words if you will dig for it.

Summarizing and crystalizing:

1. Calmly and cruelly decide whether you are fitted for a professional who shall have to sell certain products at a profit. Whether you are willing to do what is wanted instead of what you want to do.
2. Estimate your particular taste and abilities.
3. Figure your resources to the cent.
4. Can you afford to make the bid for high priced custom on that capital?
5. Can you deliver high priced goods?
6. Are you willing to establish on such a basis as your means compel and produce for the clientele that comes in that class?
7. Do you realize that the faddist and ultra-idealist can cater only to a small number and that it is a long wait to be found by those few? Also that the faddists are generally impecunious and are more anxious to sell you the output of their fad than to buy of yours?
8. Do you know that ten thousand normal persons are passing your door who know what they want and will not brook your telling them they are all wrong?
9. That the established and accepted in photography may be damned by a certain contingent as conventional but it gets the great majority and brings the money?

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10. That money is the nutriment to make the bone and sinew of commerce and that glory is great when accompanied by cash but empty if in lieu thereof?
11. Lastly, in the photographic business the whole system is comprised in—Get the Business—Deliver the Goods—Collect.

An entire book might be written on each heading but whole books may be thought out by each reader for himself if he has an aptitude that way and an inclination thereto.

Does it leave you feeling mercenary, mean, hard, all this unfeeling category of essentials? If it does not read it again, and again 'till it does. The lesson lies in that.

Idealism, cloud-chasing and so forth are to be packed away with all your erstwhile amateurish playthings. Put it where you put your extreme diffusion, smudgy high art, exaggerated lighting, fantastic poses, and determine to get down to business. After twenty years of conventional work you will be astounded to find you are still capable of being an artist, in fact, have been practicing art all the time with less talk, less pose, and less cause for justification by a lot of loose art phrases.

For proof of which refer yourself to those master professionals, Strauss, Pierce, Ellis, and the host of others whose portraiture shows the subjects as we see them, or as they would have us see them and not as an astigmat, myopic, blear-eyed, long-haired, flowing-tied exotic poseur, tells us they should look to conform to the rules of art as spelled with a cap and italicized.

Walk you in the straight and narrow path and keep yourself normal. If your Temperament champs at the bit and will not be restrained, take a picture of yourself on an off day, make the most ultra-artistic bromide of it that you can and paste it where you can see it continuously for a month. I say a month, but a week will affect a cure.



IN THE PARK

Flower Photography

By R. A. Thornburgh



Illustrations and Frontispiece by Arthur L. Bundy

A portrait's a portrait whether the subject be a man, a woman, or a rose.

This is the idea of Arthur L. Bundy, photographer at Richmond, Indiana, who has gained a wide reputation by his photography of roses grown by Richmond's wholesale florists.

He calls each rose picture a portrait because each is posed and lighted as carefully as if he were producing the picture of a beautiful woman.

Many rose growers sell their products through the medium of Mr. Bundy's photographs and in each picture he attempts to get tone and beauty very near that in the rose itself.



A ROSE GROWER'S TRIUMPH

CAMERA CRAFT



"ANGELUS"

"The rose itself may fade and lose its life," said one person, "but these pictures never lose their beauty."

It is interesting to watch Mr. Bundy at his work of making pictures of the products of the greenhouses.

He takes plenty of time in "posing his subject," as he calls it, turning the flower this way and that in order to get the best possible view.

When it is properly "posed," a little highlight showing here and there, the character of the flower is really brought out and it seems almost life-like.

To control the lighting Mr. Bundy has a head screen covered with a dark semi-transparent cloth with a hole five or six inches in diameter cut in the center. By placing this close to the flower or group of flowers he

FLOWER PHOTOGRAPHY



'THE SILENT SALESMAN'

softens the light until the shadows are full of detail and at the same time there is enough light coming through the hole in the screen to give snap and brilliancy to the picture. By changing the position of the screen different lighting effects are secured.

An electric spot light is also very effective. By placing it back and a little to one side of the subject some very beautiful effects have been secured by the Richmond artist.

"I use film altogether in my work," said Mr. Bundy in the interview. "The big advantage is the absence of halation." The portrait film is very good on flowers where there is not much color, but where there are several shades of color, it is best to use ortho film and ray filters.

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"I always try to get my lighting and exposure just right so there is no need of local development. I use Pyro developer for it produces a good snappy negative, with just enough color to give good printing quality."

Artura paper is used by Mr. Bundy for his prints, it gets everything there is in the negative, he believes, and gives very pleasing tones with plenty of brilliancy.

Flower photography is a most fascinating branch of the work, from which one may get a wonderful amount of pleasure and satisfaction, according to the photographer.

"When a person enjoys his work it's bound to be a little better than if he is just working for the dollar," concluded Mr. Bundy with a smile.

It might also be interesting to note that the rose in the accompanying illustrations is the "Angelus," a new rose produced by the Fred H. Lemon Co., Richmond, Indiana.



BOBBIE BURNS, ARISTOCRAT

—Photo by H. E. Burns.



Commercial Photography

By Ford E. Samuel



An Address Delivered Before the Rotary Club of Alameda, California.

"Commercial Photographer" means Photographer of Commerce. Up to about twenty years ago such a thing as a commercial studio was practically unknown. A photographer was one who principally made portraits of those who wished to present them to their friends and relatives, or else he was of the long haired, artistic temperament, who went about with a camera over his shoulder looking for beautiful bits of nature which, for arts sake, he reproduced on the photographic plate. Today, with the advance of modern advertising and the perfection of half tone cuts, zincographs and photogravure reproductions, the commercial photographer is as much in the business world as the man who sells him his supplies. He is a business man among business men, and a convenience which has reached the point of necessity.

I have already begun to learn, however, that unlike many of his business associates, the commercial photographer has no set hours. Like the physician it is his business to serve, and he must stand ready to answer a call at any hour of the day or night. And no matter the nature of that call, no matter how unusual, the successful photographer must respond. There should be no such word as can't in his vocabulary. If he is not properly equipped to do the work himself, it should be his duty and pleasure to direct his customer to the man who is.

Here is an example of the unusual. A client desired a pair of contrasting pictures showing a poor, deserted country church and a well built, prosperous looking one, with plenty of people and parked machines in front of it. This meant two Sundays in the country without an idea of where to find the respective churches. The photographer who did the work went to the Bishop of the Diocese or Territory who lived in the city and obtained the information desired. In two weeks he not only had the pictures but a satisfied customer as well.

An amusing incident is related by C. H. Claudy. It seems, late one night a photographer received a tearfully voiced telephone message to come to a wealthy lady's home at once. He knew that this lady's husband had been ill. When he arrived the lady met him in tears, and she sobbed, "He is dead. I haven't a picture of him. You must make one!"

The photographer prepared to photograph the dear departed. When he entered the room where the loved one rested, he found a dead lap dog. He had been called from his bed at night and had travelled several

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A STYLE OF PICTURE REAL ESTATE MEN LIKE

miles in the cold, to photograph a dog and a dead one at that. The photographer's first impulse was to get mad and leave. Photographing a corpse is one job and commands money from the wealthy, photographing a dead dog is another matter. On second thought, however, he decided to swallow his pride, so he took a flash light of the dog and sent the patron only an ordinary bill, the work was so satisfactory the lady added \$25.00 more to the check, and has become a steady customer since.

These are merely examples of some of the unusual jobs a commercial photographer has to tackle. The daily routine work, however, is full of interest to the outsider, for photography enters into every pursuit. The motion picture has provided amusement and education for millions. Photography brings down the stars so that we may know of what they consist. The X-Ray has advanced the science of surgery more than any other one thing. Areoplane photography played an important part in the recent war, and is now being used extensively in map drawing and city planning. Public men and women of all nations become known to us by photographs published in the magazines and newspapers. Pictures of railroad and automobile accidents, fires and floods are brought to our very doors within a few hours after they happen, in fact there is hardly any known thing in which photography does not play its part.

Commercial photography takes a most important place in advertising. To describe a thing on paper takes time, and also requires descriptive ability of a high order. The customer is obliged to conjure up in his mind a mental picture of the article in question, with the result that he fails to grasp, or forgets some important detail. With a photograph before him on

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the other hand, he knows exactly what the article looks like, can see the texture of the goods, the grain of the wood, or the working parts of a machine.

This advertising value is recognized in many lines of business particularly when it is impossible to carry samples of certain lines. The only way a furniture dealer can show his products away from his store is by photographs or photo reproductions in his catalogues or circulars. All dealers in bulky and heavy goods have recourse to photographs to display their goods, it is the only practical way. This silent salesman, the photograph has become a necessity in modern business, it tells more in a second than pages of type, it saves unnecessary words.

Another line of business quick to adopt the photograph for its advertising value is real estate. In the cities especially, the offices and windows of these people are adorned with photographs, some are colored to add to their attractiveness. I know of one successful dealer who has a room set apart for pictures and this place he calls his "rogues gallery." When a prospective customer comes in, he is greeted after this fashion: "Step right into this room, here you see the places we have listed, if you notice anything attractive let us know and we will send a salesman with you to look it over."

This progressive real estate agent tells me he saves hundreds of dollars a year in time and gasoline by this simple manner of displaying the properties.

There are many tricks resorted to in order to make effective photographs. I recall an attractive dwelling, the view of which from the most available point was spoiled by an unsightly telegraph pole. This eyesore had to be eliminated, as it would be even more prominent in the picture than in the view itself owing to lens distortion. The method adopted to remove this pole was the following: Two negatives were made, one to the right and one to the left of the pole about fifteen feet apart. The two photographs were then joined together with the objectionable pole eliminated, the composite photograph was then copied, the result was mistifying to the pleased customer.

In photographing store fronts reflections are a cause of serious trouble to some. These difficulties may be overcome by hanging a piece of black or red cloth directly behind the camera.

The commercial photographer to be really successful must be a person of resourcefulness. Technical points are frequently presenting themselves, work often has to be executed under the most trying and varied conditions but by constant practice and eternal watchfulness the eye seems to grasp the unexpected condition and focuses the attention on it.

Large groups: one of the most profitable features in commercial photography is in making pictures of school classes of the modern type. This necessitates a large camera and some photographers specialize on this branch of work by travelling around the country.

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The subject of home portraiture is an important one to men of our calling, we frequently receive an invitation to take portraits when engaged in other photographic work. Though this branch of work really



SHOWING THE ADVANTAGE OF FILM—NO HALATION

belongs to the portrait specialist, it would be a mistake to pass it up when thrown our way. The home portrait is steadily becoming very popular. It really takes more skill than the studio portrait, as the conditions are varied, but a good home portrait has a great appeal on account of its conventional quality.

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Perhaps the greatest number of calls for portraiture coming to a commercial photographer are for weddings and parties. Here is where flash light plays its important part. Flash light photography is not the disagreeable job it was a few years ago, when the lungs of all present were filled with stifling smoke much to their discomforture. Nowadays the flash powder is ignited inside a portable fire-proof bag of thin white muslin and the smoke is carried out of the house in this bag to be released into the open air. The flash bags also have the very desirable tendency of subduing the light, thus giving soft, pleasing results free from the harshness that was once so objectionable.

Probably the most remunerative field in flash-light work is in the making of banquet pictures. For this purpose, from three to four flash bags are suspended in suitable locations about the room, connected in series and set off simultaneously by electricity. The camera for this work is of special design with a very wide angle lens and extreme fall of front to bring everyone within range. These machines take very large pictures, usually 11 x 14 or 12 x 20 inches.

The technical points being satisfactory, the secret of success with banquet pictures is the speed with which the negative is developed and a proof brought back to the banquet hall so that orders may be booked while the participants are in the right mood.

The following way is my practice. The negative is developed in the usual manner, and after fixing is placed in a weak solution of formaldehyde to toughen the emulsion. All water is then wiped off the glass side, it is then placed in the printing frame with a piece of clear celluloid over it, all moisture and air bubbles between it and the negative being carefully removed by a rubber squeegee. A piece of sensitive paper is then placed over the celluloid and the print made in the usual way and developed. The print is then rinsed, wiggled in the hypo, again rinsed and carried damp, back to the banquet hall. It is a gamble of course how many are sold, but if the guests start buying they usually go "like hot cakes." The greatest difficulty is in getting around to all the banqueters, for many of them, especially the ladies, like to pick out for themselves as many of their friends as they can before passing the picture on to the next person.

Flash light work, however, is not very popular with photographers. Apart from the time required to set up the apparatus is the soot and dirt with which one becomes covered when cleaning the bags for the next call, also, there is no telling what may happen when taking the picture. Someone may move, a fuse may get out of order and fail to ignite one or more of the bags or, someone may bump against the support, knock one of the bags over and spill the powder on the floor, many things are liable to happen to spoil the picture. Indeed as a well known photographer has said, "flash light is the most heart-breaking of all work in photography." I think sometimes it is because we are trying to manufacture daylight, when the light was only intended us to have it a certain number of hours out of the day-four.

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It is an absolute essential however to successful work. In the taking of interiors, small flashes are used here and there to brighten up the dark corners and also to give the effect of fire in open grates.

After all is said, the commercial photographer has many advantages that the old time photographer could not avail himself of, the work has been made easier for us. The Eastman cut film for example. Previous to this photographers were seriously troubled with halation in their negatives unless they backed their plates, a messy and troublesome job at the best, this is now obviated by the use of films. Halation is a sort of halo or light glare which is very common in prints showing an open window or door when included in an interior view. Or in exteriors, where the light came through the branches of trees and often where tree tops showed against a bright sky, halo prevailed also in more or less degree wherever a strong contrast showed between a light and a dark much to the detriment of the picture. This halo was caused by reflection of light from the back or glass side of the plate. The cut film being so thin as compared to glass obviates this failing and we may now point the camera directly at the window.

Another important line of commercial photography is architectural and construction work. Here photographs are usually taken at frequent intervals from the same point to show the progression of the work. This not only leads to the selling of prints to the architects and builders but to the taking of interiors when a building is finished. A list of the sub-contracts is usually obtained from the architect and prints sent on approval to each, for instance, to the vault builders, marble contractors, decorators, electricians, window glass workers, etc.

The wide-awake photographer can also add to his income by catering to the newspapers and magazines as well as the photo-agencies that supply pictures to be placed in store windows all over the country. This is a very big field today and the returns are worth while.

No mention has been made of illustrations for catalogues, yet some commercial photographers find enough of this work to specialize on it and many are the tricks resorted to whereby technical difficulties are overcome. Take stoves for instance. There are so many cross lights and reflections on the nickel trimmings that results would be very poor without "doctoring." Hence we rub putty over all such surfaces while the polished iron is painted a dead black by the use of lamp black cut in alcohol, all of which can be removed after the photograph is made. In preparing silverware a similar preparatory treatment is necessary and in addition shoe polish is often rubbed into the design or engraved work to make it show up in the picture, neither putty nor shoe polish being harmful to the silver.

In reproducing cut glass it is customary to place it in a so-called tent, this consists of black sheeting stretched above and on each side of the object to destroy reflections. Light blue dye is mixed with gum arabic and sprayed over the glass to give it a proper color to bring out details. Stove polish is used by some for similar results.

COMMERCIAL PHOTOGRAPHY

Color screens or filters are invaluable in our work. They play a most important part in the photography of furniture and drapings. There is one thing that a furniture manufacturer is jealous about and that is, the grain in the wood of his furniture, it must show in the photograph. This used to be rather difficult in the old days but now with color screens and panchromatic plates we can make the grain show up to almost any extent, often it appears more conspicuous than in the original.

A good artist should be connected with every commercial photographer. He is needed for blocking out, retouching, coloring and putting printed matter on negatives intended for commercial use.

I have endeavored to outline the photographers more important duties. His greatest asset is the largeness of his field of work. Perhaps his greatest handicap is the amateur who uses photography as a hobby or side line and puts his prices so low as to be almost prohibitive.

But after all, for value received, a good photograph is one of the most paying investments a progressive man of business can make.



THE BROOK

CAMERA CRAFT

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Photographic Salons

It is fortunate for pictorial photography, there exists in all parts of the country men and women, who have sufficient love for the photographic art that they find a joy in slaving for its interests. Were it not for these purposeful enthusiasts photography would remain a mechanical thing, of use as the servant of other pursuits and so regarded by all.

Fortunately, there are those who believe in it, those who feel photography capable of something better, for its own sake. They give of their time and their money and their aims are worthy of respect, they work and they work hard—for photography. It is also fortunate that the public shows interest by their increasing attendance at these exhibitions, this should be productive of good. Opening the eyes of the interested, to the art possibilities of a process so handicapped with scientific exactitude.

Photography as an art is still very young, its future in this direction lies all before and it beckons with encouraging hand, the capable. For those who do not regard the camera a mere plaything, these exhibitions point the way for future striving and definite aim.

The gulf is wide between the good photograph and the good picture. The good photograph is frequently not a picture at all, it is a record, sometimes pleasing. The good picture suggests, it encourages imagination. The more technically perfect the photograph, the less it suggests, and some affirm this should be the aim of photography. Fortunately, opinions differ.

It is only natural, workers striving for a difficult end, the pictorial, should exert themselves to the utmost to cast off a mechanical rendering inherent to photography. And in this praiseworthy effort some in their enthusiasm succumb to means that are questionable, by offering a product more suggestive of other arts than photography. This will probably rectify itself in time.

Experience has taught, that other branches of the fine arts have been developed on the recognition of their limitations. And furthermore, they have been discounted when attempts have been made to encroach on the domain of a sister art. Honesty of purpose seems as important here as anywhere else. This honesty demands, the product be true to itself and have the stamp of individuality inherent to the process.

Let us turn to wood engraving for example. The earlier workers developed their efforts on its chief charm, a bright white line in all its character and crispness on a black ground. The art developed and was respected, it was like no other graphic art at its height. The craftsman became so

PHOTOGRAPHIC SALONS

proficient with his tools he lost sight of the peculiarities of his medium, he undertook to reproduce pen and pencil drawings by this means, exchanging the white line of his process secured with one cut, for the black line of the pen which necessitated two cuts, one on each side. Think of the enormously increased labor cost to secure one line. From this stage the craftsman elected by an infinite number of marvelous cuts to reproduce brush strokes and tints; the cost, was the forecast of a tragedy. Photography came in under the name of "process" and swept this costly thing from the board. Today, we have here and there a comparatively small number of amateurs trying to revive the old wood blocks. These are true amateurs, God bless them, for they must labor patiently and long, with other aims and ideals, to revive the interest in a once great art.

Etching, too, has had its trials at the hands of those blind to its forte. Today, those etchings whose lines show the vigorous bite of the mordant, or the exquisite swing of the dry point are valued. Those lines have a meaning, the brain is behind them, they belong to etching, they are found nowhere else and as long as the art is true to itself it is sought, respected and it flourishes. On the other hand, where the etcher through ignorance, (indeed it is pitiful ignorance), has overburdened his plate with a multiplicity of lines, striving for tints which belong to the brush, has failed.

Lithography too has suffered at the hands of ignorant friends. The amateurs again, capable artists it is true, took up this medium to show how responsive it was, and they strove for a return of its glory.

Pictorial photography is young, very young. May we not glean from the past what other arts have suffered? The lesson is plainly written, the thinking should heed: "Be honest with your medium!" The photographer should not feel one heart beat of pleasure when told, his photograph, his picture looks like some other thing. Why be glad if your diamond is glass—just a fraud?—E. F.



MORNING

ART AND THE CRAFTS

A Department Devoted to the Encouragement of a Closer Relationship
Between Photography and the Fine Arts.

The Stanford University Art Gallery
Thomas Welton Stanford Art Gallery
By Mary van Court

With the opening of the Thomas Stanford Welton Art Gallery at Stanford University in January, 1918, a new art center was established in California. This beautiful, new building, erected in harmony with the previous University architecture, was placed as the first building of the second quadrangle unit of the original University plans. Since its erection, the inspiring and artistic Stanford Library has been completed next to the Art Gallery and the growth of the University toward the south has been well begun.

The donor of the Art Gallery as well as of the new library is Thomas Welton

Stanford, a brother of Governor Leland Stanford, who was identified with Leland Stanford in the early days of California, but left for new fields of venture in Australia. His experiences and business development there read like a tale of adventure, but the fact remains that his permanent interest in California and the University resulted in his magnificent donations, establishing great educational privileges for all time in California.

The erection of the new art building at Stanford made apparent the need for an art director; one who would correlate the art sections of the Stanford Memorial Museum with the new art gallery, as well as establish the exhibitions of paintings along lines in harmony with the University life and community needs.



INTERIOR OF ART GALLERY Pedro J. Lemos, Director

ARTS AND THE CRAFTS

With this in view, Pedro J. Lemos was appointed by the University Trustees to direct this department. Mr. Lemos was director of the San Francisco Art Institute and had placed that institution on a practical basis and had organized the school of art in such a way that it became nationally known because of its standards. Known widely as an art educator, called upon from all parts of the United States in mat-

How well this possibility has been realized may be seen in the work and exhibitions held during the last three years. A review of the exhibitions held there show two progressive and "different-from-usual" conditions to those connected with California exhibitions. First, there has been shown art work from all parts of the world. Second, the exhibitions have been not only of paintings, but of art in its



One of the Entrances to the Thomas Welton Stanford Art Gallery

ters of educational art organization, author of a number of art technical books, as well as editor of the art educators' national organ, *The School Arts Magazine*, Mr. Lemos accepted the new appointment feeling that the position offered greater possibilities, and a chance to present an art development in a new way.

bigger sense, in that handicrafts, photography, archaeology, printing have all been displayed, as well as etchings, paintings and sculpture.

The Director feels that a false value has been for many years placed around painting and paintings alone, and that the art values of such related subjects as photog-

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raphy and applied arts have been neglected. He has, therefore, opened the galleries to the exhibitions of photographic organizations such as the California Camera Club and the Pictorial Photographers of America, and regular exhibitions of artistic photographs are enjoyed by the community each year.

As regards Applied Arts, there have been exhibitions from the Art Alliance of New York, work from various applied art schools of the East, exhibitions of weaving and textiles, handicrafts from all nations, as well as an exhibition of Aztec and Maya Indian handicraft and paintings.

In the painting exhibitions, groups of paintings by the foremost American artists have been shown each year. The exhibition of the American Water Color Society, and American Illustrators were shown one year. The latest work of the American etchers is shown each year. Every month of the college year sees from one to three exhibitions placed in the University Galleries, altogether showing the greatest number of eastern collections in the West.

With the selection of the Stanford Art Gallery as the western depository and circuit center for the American Federation

of Art with Mr. Lemos as Western Representative, the community at once was assured the privilege of seeing many collections for the first time on their arrival from the eastern art centers. This has resulted in many art lovers from far and near regularly attending the Stanford exhibitions, many of them coming from round the bay cities for the purpose.

But with all the attention to eastern art productions, the California artist is not forgotten, as many collections of paintings from the studios of California artists have been shown as well as from eastern studios.

The various art colonies of California have had their opportunities. The Carmel Arts and Crafts Society gave its most prominent exhibition last year, and the Laguna Beach Art Society will give one this year. It would be a long list which would include all the individual Californian artists who have exhibited work at Stanford. Many "one man shows" are given, and as work is selected upon merit rather than reputation, it is to the credit of Stanford that several names that have achieved distinction were first exhibitors at Stanford University.

CYPRESS POINT, CARMEL
From a Painting by
J. VENNERSTROM CANNON



ART AND THE CRAFTS

As an illustration of the broad, balanced scheme of exhibition plans at Stanford, the exhibitions at this writing include the work of two California artists. One of these is Mrs. J. V. Cannon, Berkeley artist and art critic who has a wonderful ability in securing in paint and canvas the sparkle and brilliancy of the California sea coast. To own one of her subjects is to bring into one's home the invigorating and appealing lure of the seaside. Her work contains the strength and broadness seldom found in the work of a woman artist; and the fine sense of color combines to make her subjects not merely pictures, but also decorations.

Mr. Clapp's work is that of an artist who has traveled much and painted everywhere he has traveled. He is a strong technician and his work varies in method, but each method is well done, and combined throughout with a fine sense of draughtsmanship. He endeavors to base his work upon visual truth (actual, remembered, or imagined) and as neither weight nor solidity are visible (ultramoderns to the contrary notwithstanding) he endeavors to eliminate them as much as possible. Mr. Clapp is not interested in objects as objects, but tries to fix on canvas the joy derived from the exercise of vision, the act of seeing.

Beside these two exhibitions, each of which is in a separate gallery, there is a collection of art work from the High Schools of New York, under the direction of Dr. James P. Haney. This group is of immense interest to art educators, since Dr. Haney's work has roused nation-wide interest, due to his correlation of art work with industrial needs and the establishment of art schools in connection with public school systems.

In this way, Stanford University has contributed a distinct art service to California, combining it with the advantages it presents through its musical programs and literary presentations, a triad of artistic offerings given without charge or conditions to the public, fulfilling the Founders' vision of aesthetic and material benefits to the people of California. The regular attendance and the fact that the community is composed largely of those who seek cul-

tural and refined environment shows how amply this vision has been realized.

The Art Gallery at Stanford, combined with the Art Museum is gradually achieving a prominent place in California art. Without blare of trumpets or exaggerated publicity, it is presenting in a dignified way both to the artist and to the public a meeting ground on which both may see the productions from many studios under ideal conditions.

The foresight of the Stanford founder of the Art Gallery, together with the broad, practical viewpoint of the President and Trustees of the University that education means service, has combined happily with the purpose of the Stanford Art Gallery Director to make that institution a live, serviceable community building,—which after all is a real part of the Stanford Spirit.

The Camera and the Illustrator

By Don Gridley

At one time the camera had no more ardent antagonist than the artist. But today the artist has realized the possibilities of photography and more and more is calling on the camera as an efficient helper.

A number of problems, which have hitherto been difficult to solve, have been un-



The camera can be a great aid in making costume illustrations

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The artist was up against the problem of drawing a picture of a man sneezing. Obviously no model could hold this pose for any length of time and it would have been difficult to draw this pose from imagination. The camera was called in and got a picture of a man actually sneezing. This photograph was held and used by the artist at his leisure.

ART AND THE CRAFTS

raveled by the lens and the photographer working hand in hand with the artist.

For instance, an artist wanted to make an illustration in which the really important figure was sneezing. An artists' model could "hold" a sneeze just as long as it would take him to sneeze actually. Therefore it was out of the question for the artist to employ a professional model. Instead he called upon the camera which caught a man just as he was in the midst of a good hearty sneeze. With the photographic print in hand the artist had the time to make a careful study of his model and to draw an effective illustration in which a man sneezing was the keynote.

In making a series of historical pictures for the National Note Book Company, the artist experienced some difficulty in getting models to get just the poses he desired. Costume seemed to interfere, and the model could not hold the pose for any length of time. So a series of photographs were prepared showing the models in the poses desired. From these the artist was able to finish the sketches at his leisure.

There is just one danger in the use of photographs, and that is that the man who is making the illustration will follow them too slavishly. The pantograph and the silver print are barred—for each illustration must not be an exact reproduction of the

photograph, but a modified adaptation for use in getting the best advertising effects. The drape of a dress or the attitude of the head which will give the best results can only be caught for an instant—and it is for these that the artist is working when he calls in the camera.

A number of reasons for using this idea are at once apparent. As an aid to economy it saves hours of posing and hours of rent on costumes and accessories. Often even the best model will be unable to resume a particularly effective pose that he or she has struck. But once this pose has been caught by the camera it will always be available to the artist.

When an artist is working on several different jobs at one time he will welcome the aid of photographs. If he has pictures of the various units of his illustration he can drop one picture at any time to take up a bit of more urgent work. This is distracting, but it happens in the best studios.

Intelligently used, the camera can be a good helper for the artist. It makes it possible for him to hold elusive poses—and allows the artist a greater latitude than would be possible if he were tied down to his studio with an actual model, who after all can only hold a pose for a comparatively short time—and then too often finds it impossible to regain it.

This article and illustrations reprinted from PRINTER'S INK MONTHLY, December, 1921, by kind permission.



NOON

A PHOTOGRAPHIC DIGEST

Edited by H. D'Arcy Power, M. D.

The Mechanics of Light-Filter Making

(Continued from January Number)

Coating and Stripping

The plate-glass, polished side up, is placed on a slab and leveled. If the slab be level in the first instance this alone should not be relied upon, for the glass may be somewhat uneven. Stout and squat legs of "Plasticine" placed underneath the slab (as first suggested by Mr. J. W. Purkis, who prefers four legs, not three) afford a ready means of adjustment. For the occasional worker, coating glass larger than whole-plate is not recommended.

With the glass slightly warm and perfectly level, the hot-dyed solution is carefully poured on the center, when it will readily flow over the surface and take up its own level. The amount of gelatine solution usually given for a certain area is such that whilst flowing to the edges it will not overflow.

When the coating is perfectly dry, it and its support are placed vertically about two feet above a bowl of steaming water for about four minutes. A sharp knife is then quickly run round the edges of the gelatine, when, if the glass has been properly cleaned, the gelatine film should strip readily, and require nothing in the nature of hard pulling. If resistance is met with, more steaming is wanted. On the other hand, if the gelatine is found to be soft and elastic from over-dampening, it is put aside for a few minutes and tested again for stripping. The stripped film is placed between tissue paper, and when quite dry examined for any uneven edges which are cut out, and the pellicle stored between stout cardboard.

Cementing

Having selected a piece of the dyed gelatine free from dust specks, hair, etc., it is

placed between the two glasses, and trimmed round with a sharp knife. The film is then ready for cementing. Canada balsam dissolved in xylol is recommended, as it flows better than when chloroform or ether is used as the solvent. The right consistency is about that of golden syrup, not thicker.

Having placed the component parts of the filter on a piece of waste paper supported on a level surface, lift the top glass and gelatine film with the left hand, and from a broadmouth pipette pour on enough balsam in the center of the glass on the paper to about cover one-fifth the surface, and at once drop the film on to it. No attempt at this stage should be made to distribute the balsam. A similar pool of balsam is immediately poured on the gelatine, and the remaining glass lowered on to it. Central pressure by a finger will now force the balsam, and any air-bells formed, out towards the edges. As much balsam as possible should be squeezed out, and the edges wiped before putting the filter aside to dry.

Drying and Cleaning

Quick drying by heat is always to be avoided, as it dries the balsam at the edges rapidly, and usually causes distortion. Three weeks should be allowed, the filter being kept in a warm room. Neither can placing the filter under a weight be recommended, though if the filter is on a level surface and the pressure applied is moderate and uniform, there is no theoretical objection. A practical one is that the filter more often than not sticks to both support and weight.

The best plan to adopt is to rest the filter on some wooden slips cut to triangular section and supported in a level position by a tray of some sort. This allows any balsam that may ooze out to run clear of the filter and drop on the tray. When

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the three weeks have nearly expired if much balsam is seen to protrude it may be gently scraped away. Finally, the filter is cleaned with methylated spirits and a soft cloth, and polished with alcohol or good quality methylated and tissue paper. To employ a stronger solvent, such as benzole, is dangerous, as if any were to run between the glasses the balsam might be attacked and star, when the work would all have to be done over again.

A word of warning may also be given against the use of binding strips, which are prone to cause distortion. The neatest way of finishing is to black the edges with a black celluloid varnish or paint. Varnishes containing turpentine, or other solvent capable of dissolving the balsam, are, of course, inadmissible. After polishing, and thus edging, the filter should be tested for flatness in the same way as suggested for its component glasses.

Mounting

Filters should never be placed in cells or holders that are liable to exercise undue or uneven pressure on the edges, as distortion will inevitably result. The performance of many a high-class filter has been ruined by a clamping ring screwed up too tightly. A clamping ring should always have a shoulder so adjusted that when the ring is screwed home the filter is only just held with no tendency to rattle. A point occasionally overlooked is that the filter must be sufficiently large not to cut off the marginal rays of the lens. Thick flats require more allowance in this respect than filters of lesser substance.

C. Smyth, in B. J. of Photography.

The Effects of Variation in the Sulphide-Toning Process

The paper by Mr. E. R. Bullock, of the Eastman Research Laboratory, which appears on another page, brings together a volume of carefully-conducted experiments which is deserving of study by users of the process of sepia toning by bleaching in the customary mixture of ferricyanide and bromide and darkening or toning in a bath of sodium sulphide. With one or two exceptions it cannot be said, perhaps, that the paper discloses facts which were previously unknown, but it very usefully sets forth the effects of variations in the two

parts—bleaching and darkening—of the process, and on that account renders a valuable service, particularly as regards the advantage or otherwise of modifying the standard practice. This is especially the case in reference to the use of the darkening sulphide bath, which, in our experience of many questions on the part of readers, is the chief factor in failure to obtain satisfactory sepia prints.

Mr. Bullock takes as the standard process for sulphide toning the formulae which have appeared for some years past in the "British Journal Almanac" (page 461 of the current volume). These formulae were the result of, chiefly the very thorough experimental work carried out by the late Douglas Carnegie. They differ to some extent from formulae recommended by makers of printing papers, chiefly as regards the smaller proportion of bromide to ferricyanide in the bleach. The composition of the bleach in this respect is one of the first points examined by Mr. Bullock, who shows that there is no advantage as regards either speed of bleaching or color of prints in increasing the ammonium bromide beyond the proportion (one-third of the ferricyanide) of the "Almanac" formula. Adopting this 1:3 ratio of ferricyanide to bromide it is shown what is the effect of greater or less strength of the bleach bath. At a strength of 10 per cent ferricyanide, bleaching is rapid, but the color is somewhat more yellowish. At from 3 per cent to 1 per cent strength the bleaching is almost as quick, whilst the color is normal. At strengths substantially less than 1 per cent of ferricyanide, bleaching is much slower, whilst the color is just as good. It therefore appears that the most advisable strength is about 3 per cent, that is to say, 240 grs. of ferricyanide (and 80 grs. ammonium bromide) in 20 ozs. of water. This, it will be seen, is not much less than that of the "Almanac" formula.

As regards variation of the chemicals in the bleach, it is shown that there is no advantage in modifying the standard ferricyanide-bromide formula. Ferricyanide alone or in conjunction with potass chloride or iodide gives a bleach which is slower than the standard; and the color of the prints, particularly when iodide is used, are more

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yellowish. Mr. Bullock records the effect of replacing the bromide by other salts, such as sulphocyanide, selenocyanide, and cobalticyanide, without finding any advantage and, in fact, disclosing, in some cases, great advantages.

When we come to the behavior of the sulphide darkening bath the observations recorded in the paper fully confirm the advice which is commonly given for the avoidance of inferior results in sulphide toning. It is shown that up to a strength of about .5 per cent of sulphide in the darkening bath, the action is slow and the results are yellowish. On the other hand increasing strength beyond about 1 per cent of sulphide produces no increase in speed in darkening and no advantage as regards color. While not mentioned by Mr. Bullock, it is worth emphasizing that too strong a sulphide solution favors the blistering of many papers. At the same time it is important that the sulphide bath should not fall below strength in use, on which account the "Almanac" formula for the working solution directs a strength of about 3 per cent. Even so, the bath should be plentifully used in order not to exhaust it by the passage of many prints through it. Such weakening of the bath is particularly harmful if hypo is present in it. Mr. Bullock dismisses the idea that hypo is formed by oxidation of sulphide in the darkening bath, and assumes, we suppose, that it comes there through insufficient washing of prints. At any rate, its effect is a very marked one as regards yellowing of the color.

A recommendation, which we think is new in respect to sulphide toning, is to dip the prints for about ten seconds in a 1 per cent solution of soda carbonate immediately before darkening in the sulphide. With most gaslight papers this is found to

favor a more purplish color. This effect is found to be produced also if a bleach, such as ferricyanide and chloride—that is to say, one giving a bleached image of silver chloride—is employed instead of the customary ferricyanide-bromide.

Some experiments on the bleaching of prints to images of silver ferricyanide and silver ferrocyanide are described but appear not to have resulted in any sufficiently-marked advantage over the standard practice; in fact, the results appear to be more yellowish, which usually is precisely the effect which is not wanted. Experimenters, however, will be interested in the bleach formulae for ferrocyanide and ferricyanide images given in connection with experiments B. 11 of Table II.

Perhaps the most valuable certificate of the process is contained in Table III. of Mr. Bullock's paper, where it is shown what very little difference is produced in the final tone by the very considerable modifications of the procedure. That is certainly one of the chief merits of the sulphide-toning process, one which makes it exceedingly difficult to find a more satisfactory process for the sepia toning of development prints. Very considerable alterations as regards time and temperature of bleaching, time and temperature of darkening and duration of washing at various stages have practically no effect upon the final result. The things which do have an effect, and which therefore call for the particular attention of the user of the process, are those to which attention has been specially called in the previous paragraphs of this article. A study of these considerations, in reference to the very clearly tabulated experiments in Mr. Bullock's paper, should therefore serve for the discovery of the cause of any difficulties experienced in the process.—B. J. of Photography.



THE AMATEUR AND HIS TROUBLES

Conducted by Edgar Felloes.

Black and White Negatives

I recently received a letter from a subscriber explaining the difficulty he was experiencing when making negatives of line drawings and reproductions of pen illustrations. My correspondent explained he could not secure the pure white so desirable in the final print. On another occasion a writer wanted a developing formula to secure black and white reproductions from line illustrations, he also complained that his ground in the finished copy always showed a tint, whereas, he desired pure white. This correspondent was quite sure his developer was at fault. I have tried for a long time to impress on the photographer's mind, it is the exposure that really counts and not the developer. In other words if your exposure is right, you can get sufficient density with almost any developer. If your exposure is wrong you can not get sufficient density, no matter what developer you use. On this one point let us give a little thought, and having mastered this one principle we shall find the making of a black and white negative is really one of the simplest of undertakings.

During my photographic career, I at one time devoted four years to the making of black and white negatives daily in a professional way. My work ranged from the lantern slide up to 11x14 inch plates, and I learned this fact, it is all in the exposure, the developer is quite secondary. I used Hydroquinone exclusively, because it was cheap, and for this particular purpose there is no better developer. Hydroquinone will give such an intense black that you cannot see the electric light through it, and that density is far greater than necessary. Some workers recommend Metol Quinol, but I ask why metol to secure density? We are not trying to coax detail in under-

timed shadows, as our work is all on one plane, evenly lighted, the metol though not harmful merely increases the cost. And even if an amateur, you should study cost; if a professional, you must study it.

The theory of getting this great density is merely this: the emulsion on the plate or film consists of gelatine and countless atoms of silver piled upon one and another. If you give sufficient exposure a greater number of these particles will be affected by the light, not only are those particles near the surface of the film acted upon, but also those buried beneath down to the support be it glass or celluloid, will show upon development the result of the light action. It stands to reason then, the same developer will show very different results with much silver impressed than with, let us say, only one-tenth of that amount showing light action. If one will only grasp this and remember it, I shall feel what I have written has done some good.

It is difficult for the amateur who has served his apprenticeship to photography with a hand camera, and who is accustomed to expose in fractions of seconds, to realize, that in copy work, such as black and white negatives, he should forget what he has learned as to exposure time and that he should substitute minutes and fractions thereof in place of his old habit.

The time of exposure is not governed by the density you wish, but by the strength of the lines in your copy. If your effort is to reproduce a drawing with very fine lines you cannot give the exposure that a coarse lined drawing will stand. Therefore for early experiments select copy with bold lines, it does not signify if there are many or few of such lines but it is important that they should be black. Drawings made with watery ink or printed gray lines are best avoided until quite proficient at the

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process, for such work is very difficult to handle. But with good copy, such as line drawings in the better class of magazines the work is simple.

The next thing to claim our attention is the plate. This should be what is known as a "process" plate. As compared to other plates, it is very slow and with proper manipulation yields strong contrasts. Good results may be secured with medium fast plates, but the work is more certain with these process plates and they are recommended.

The placing of the copy in a suitable light is important. Either daylight or artificial light will serve. Artificial light is preferable as it is more constant. The essential thing is even lighting which should fall on the copy in such a way to avoid showing the grain of the paper. When using artificial light this is overcome by lighting from both sides of the copy, but with care we can secure excellent results with daylight if it falls on the copy from the front.

Having selected your print and placed it on the copyboard, focus it and use stop F-16 or F-32, according to the intensity of your light. With F-32 and good daylight indoors one minute exposure will be about right for a same size copy. You are not likely to overtime at any rate, with one minute. Do not guess, use your watch for timing. When making copies on a reduced scale, exposures are reduced in proportion to the scale of reduction, but of course the illumination is really the determining factor.

As to the developer, perhaps I had better not give a formula. The maker of the plate or film will provide the formula most suited for his product. It is to his interest to do so. I am strongly in favor of following instructions to the letter at least as far as compounding the chemicals go.

I will now tell you how I manipulated these plates. In the case of lantern plates several would be developed at one time in a rack. Where large plates were used I developed in a tray. After exposure the plate, if a large one, was placed in a tray and the developer that the plate maker recommended was poured in a sweep over it and then the tray gently rocked. By

glancing over the surface of the plate towards the safe-light, it will be easy to sight any air bubbles clinging to the surface of the emulsion, when this happens break it at once with the point of the finger. Continue rocking the tray until the clear lines of the design begin to darken over, then pour off the developer which may be used again, and rinse the negative, then place it in an acid fixing bath. Leave it to get thoroughly fixed. After fixing, rinse the plate and examine it. If it is found to be clear in the lines and sufficiently dense in the black there is nothing more to do than to return the plate to the wash water and leave it to wash for about twenty minutes, then place the plate in the rack to dry. The plate when dry should be spotted, if any imperfections show. The spotting consists in applying a little "opaque" to little "pinholes" which sometimes make their appearance on the negative. These are covered up with the aid of a fine sable brush. These holes are generally caused by dust on the plate during exposure.

Sometimes through error of judgment in exposure, our negative does not develop with sufficient contrast. This will also be the case where the fineness of lines in the drawing necessitated cutting the exposure time. In either event our blacks suffer. Where we have this to contend with, develop the plate as explained till the black lines gray over. Fix and wash the plate and while it is still wet, place it in a tray containing Farmer's or red prussiate and hypo reducer. This is made as follows and should be freshly mixed before use:

Hypo solution (1:5).....5 ounces

Potass. ferricyanide (10% solution), add sufficient of this to hypo to make a lemon color mixture.

Rock the tray to secure uniform reduction and watch the lines closely, as soon as all traces of veiling or fog have disappeared from the lines; immediately wash the plate under the faucet, to arrest further chemical action. The plate must now be washed and dried. The next step is to intensify the plate; for this purpose I use the Victor intensifier on account of convenience and follow the maker's directions.

FOR THE PROFESSIONAL

In the Interests of Commercial and Portrait Photographers.

Broken Negatives

The disaster of a broken negative is an ever-present contingency which must be met as the printer best can. Several excellent ways have been published, that most frequently recommended being the cementing of the broken pieces with Canada balsam. This is hardly applicable to the ordinary studio in which there is rarely any balsam at hand, nor, what is more important, anyone who can use it, for Canada balsam is very sticky, especially so where not required. Any good fish glue, such as is sold under various names, Seccotine, Mendine, and others is equally effective, although the refractive index is not the same as that of the balsam, which, by the way, does not render the crack invisible. The broken edges should be very thinly coated with the glue and brought into contact while the negative is lying on a flat, wooden surface covered with thin paper. A few push-pins should be driven in round the edges to prevent movement, and the whole put away in a dry, warm place for a couple of days. When dry, a thin line of opaque should be painted over the join so that there is a white line in the print, this being much easier to work out than the unequal shadow of the crack.—B. J. of Photography.

Hypo-Alum Toning

The progress which has been made of late in the manufacture of development papers exhibiting more widely marked characteristics, is perhaps one of the causes of the varying experience in the use of the hypo-alum toning bath. As is well known, the manner of "ripening" the bath by introducing into it a certain quantity of silver compound has a good deal to do with its proper toning action, and is found variously to influence, according to the nature of the paper on which the prints are made, the particular tone which is obtained. The

method of ripening a bath by addition of clippings of waste P. O. P. or bromide paper is certainly a plan which is preferable to the addition of silver nitrate, sometimes recommended. But a still better system, so it seems to us, from the point of view of standardising the hypo-alum toning process is that which has just been embodied by the Kodak Company in the instructions for toning Kodak Bromide paper by the hypo-alum method. Probably many who have had difficulty in the process will be interested in making trial of this new bath, the instructions for making which are as follows:—Dissolve 1 lb. (400 gms.) of hypo in 80 ozs. (2 litres) of hot water, then add 3½ ozs. (90 gms.) of ordinary alum; stir well and boil for two or three minutes; cool down to about 150 deg. F. (65 deg. C.) and add the following silver ripener:—Dissolve 20 grs. (1 gm.) of silver nitrate in 1 oz. (30 c. c. s.) of water and add, drop by drop, .880 ammonia until the precipitate first formed is just re-dissolved; (stir vigorously while adding the ammonia). Add this to the hypo-alum mixture and stir well. In a further ounce (30 c.c.s.) of water dissolve 40 grs. (3 gms.) of potassium iodide; add this to the hypo-alum mixture and stir well. This bath can be used over and over again. It may be kept up to its original bulk by the occasional addition of fresh solution, and when it ceases to tone satisfactorily it should be thrown away. Prints for toning by this method should be fixed as usual, briefly rinsed in water, soaked for ten minutes in a saturated solution of alum, rinsed, and then toned at a temperature of 140 deg. F. (60 deg. C.). After toning, sponge the prints with lukewarm water to remove sediment, and wash as usual.—B. J. of Photography.

CLUB NEWS AND NOTES

Club Secretaries and others will oblige by
sending us reports for this Department

"The Dark Room Club"

It was not so long ago that a few enthusiastic amateurs of Milwaukee came together and organized. There were only a few, but enthusiasm made up for lack of numbers. Everybody knew every other body and they combed the place for kindred spirits. Today this club has many skilled workers and it is proving quite a success.

"The Exposure"

Chicago Camera Club

From this Club organ we glean the following, which we are glad to publish as a hint to younger Camera Clubs:

Our Opportunities

The Value of any organization lies in its ability to do some good outside of its own peculiar sphere of activities. The organizers of the Chicago Camera Club probably did not realize the importance of this factor when they launched this venture some twenty odd years ago. A camera club primarily should, and in most cases does, exist for furthering an interest and appreciation of the vast scope which photography plays in the artistic, scientific and commercial life of a community. However, it has been found that it is necessary to go a step beyond the confines of club activities to make a camera club a factor in the civic life of a community. As a camera club grows, various demands are made upon it. Other organizations look up to it for co-operation in putting across some special feature involving the aid of good photography. This has been exemplified again and again in the life of our club. We can truly be proud of our contributions to the Municipal Art League in raising the standard of Postal Card Views of Chicago. Our contributions to various other artistic ventures need no comment. It is this particular phase of co-operative work which

makes a camera club worth something to any community, be it large or small.

"The View Finder"

California Camera Club

We quote this, we found it in The Finder:
The Wonders Are With Us

This club, this husky collection of artists, near artists, "hammer throwers" and just ordinary folks, enters upon the New Year heads up, cameras ready.

You have thought, sure you have, of our unusual environment and natural surroundings for picture taking and making. Our club rooms are centered in the "city that knows how," in the midst of many interesting wonders. We breathe them in, live among them, swear by them without fully appreciating their tones, values and subjects. We laugh in their sunshine and swear in their fog. We do both with that youthful joy that has made this city a place different from any other.

D. J. Foley.

"The Ground Glass"

Newark Camera Club.

Among the "Workroom Warbles" is printed the following, we pass it on:

Members with Christmas gifts for Ye Editors can ascertain their home address from the Secretary or leave them at the Club. Cases of "books" that are liable to LEAK should be delivered in person.

The moving proposition has shown us that A FEW of our members evidently are so darned lazy that they don't wear a hat for fear of having to tip it when they pass a lady they know.

A comic member at a meeting is a great deal like a stubborn donkey—sometimes you want to get mad at 'em—other times you just laugh at 'em.

Some members are like shadows—only around when the sun shines.

OUR BOOK SHELVES

The British Journal Photographic Almanac

This notice is more to inform you that the Almanac for 1922 is out, rather than to say what it is, for you probably know.

Sixty-one years ago the B. J. Almanac made its first appearance. This means, to the majority of us, this annual was with us from the time we could read. A photographic publication as old as that surely must amount to something; it has prospered long, it is an institution.

A new photographic novice joins the ranks daily. Of these there are some who will carry on the demand, until through habit they will look for this annual to round out their collection of books for the year.

A full account of the researches of Luppó-Cramer and others on development by white light will be found in the pages of this Annual. You now have this knowledge in convenient form.

Dye-toning will be of interest to lantern slide makers and cinematographers. Particulars of this improvement are also here in this Almanac. There are many formulas, the B. J. Almanac has always been famous for them. There is an almost endless supply of trade notes and these also furnish really interesting reading. We marvel at the variety of cameras shown, the number of lenses made. And we can not help but conclude that photography is a most wonderful thing.

Those interested in color photography will find short accounts of many processes with references to more lengthy articles from various sources. Carbro, Ozobrome and Bromoil processes have received attention. The editor, George E. Brown, F. I. C., has added some chapters on Self-Instruction in Photography. We believe readers will be interested in them, they

have a real value, they help us understand.

As we said at the head of this notice, this is to inform our readers The British Journal Photographic Almanac is ready for them. It may be obtained from most photo supply houses, or direct from George Murphy, Inc., sole sales agents, 57 East Ninth Street, New York. The price of paper edition is \$1.00; bound in cloth, \$1.50.

Color Photography

John A. Tennant, Editor of the Photo Miniature series, could not have found a more capable man than C. E. Kenneth Mees, D.Sc., to write on this subject. To Dr. Mees we are indebted for No. 183 of this invaluable series, and the subject of Color Photography is handled in a way that will particularly appeal to the student.

The author has given an account of the various methods attempted by inventors, with illustrations of various devices. There are several photomicrographs of screen plates, including the Autochrome. There is a diagram showing the use of the Autochrome plate and explaining the theory of color separation in a delightfully simple way.

Dr. Mees' book is a mine of information on the subject. Its charm lies in the way in which the various processes are described, and no inquiring reader can put the book down without having gleaned a comprehensive idea on this fascinating subject.

The Photo Miniature series should be known to every amateur photographer. Photography is now quite a big subject, and it is here these admirable booklets serve their purpose. Each one of them is written by an expert on that subject treated, and the price is forty cents.

The Photo Miniature may be secured from Tennant & Ward, 103 Park Ave, New York.

INTERNATIONAL PHOTOGRAPHIC ASSOCIATION

CLASS I

Regular members or those desiring a general exchange. Such members may limit their exchange, or specify a certain class or kind of work desired, in their exchange notice. Class I members are expected to answer promptly all letters in which a stamp is inclosed for reply.

CLASS II

Members who, from lack of time or uncertainty as to address, might find it inconvenient always to reply promptly to inquiries concerning exchange. Class II members will receive few, if any, unsolicited exchanges, as they are expected to acknowledge only such correspondence as they may themselves invite.

CLASS III

Members desiring to enjoy only the benefits of the Circulating Albums. All members, regardless of the Class to which they belong, in order to receive the albums, must send prints to the Director of their State or the General Circulating Albums for insertion therein. In no case are Class III members to be asked to exchange.

The word Class as used in this connection has no reference to the grade of work turned out by a member.

RENEWALS

- 170—Thos. J. Ronald, Woodbine, Iowa.
Up to 8x10 and 7x11 of views, home portrait groups and general portraiture; for genre, draped and undraped, and snappy girl poses. I can correspond in Esperanto. Class 1.
- 777—Herbert R. Gregg, Oroville, Wash.
Class 2.
- 1572—Harry E. Bishop, 1824 Central Avenue, Indianapolis, Ind.
Class 2.
- 2479—Mrs. L. E. Gundelach, Box 94, Amboy, Wash.
Class 2.
- 2498—B. B. Sprout, 216 First National Bank Bldg., Williamsport, Pa.
2¼x3¼ to 5x7 and enlargements to 6½x8½ of miscellaneous subjects and speed work; for anything of general interest. Class 1.
- 2885—George Macaulay, 167 Allen Street, New Bedford, Mass.
Class 2.

3255—Dr. A. M. Sutton, 311 Walnut Street, Pacific Grove, Cal.

Class 2.

3295—James B. Herrick Jr., P. O. Box 1105, San Diego, Cal.

I have subjects of general interest; for bathing girls or figures, original prints only, no copies. I desire to exchange only girl pictures. Class 1.

3394—George B. Ley, Box 101, Firestone Park Station, Akron, Ohio.

Class 2.

3820—W. S. Cotton, 5021 33rd Avenue S. E., Portland, Ore.

Stereoscopic P. O. P. or D. O. P. of Canadian Rockies, Columbia River Highway, California, scenes, bathing girls, etc., for anything of interest. I desire to exchange only stereoscopic or lantern slides. Class 1.

3829—Archie Gilfillan, 1441 Page Street, San Francisco, Cal.

I have for exchange locomotives, horse cars, cable cars, electric cars, sailing ships, steamships, tug boats, river steamers, steam trains, old missions, bay and coast views and scenery. I want the same subjects in exchange. Only good work sent out and received. Class 1.

4136—C. E. Fey, P. O. Box 25, Laramie, Wyoming.
Class 2.

4233—Harold Sherer, 1031 Walnut Avenue N. E., Canton, Ohio.

Class 3.

4400—Lester K. Miller, Jones, Mich.

Post cards of views of snow scenes and flowers, for anything good. Only good work sent. Class 1.

4413—Wilfred Hickman, Fairmount, Ill.

Class 2.

4431—William C. Settgas, 526 Flatbush Avenue, Brooklyn, N. Y.

Class 3.

4522—C. D. Ostrom, 538 Freeman Avenue, Kansas City, Kansas.

4x5 developing papers of Graflex and speed work, press photos, cowboy sports, circus photos, bathing girls and actresses; for the same. Class 1.

4549—Fred Goodin, R. F. D. 5, Covington, Ind.

Class 2.

4558—R. M. Hart, Route 5, Sterling, Ill.

General studio portrait work up to 5x7 on portrait papers and some scenery, landscapes and general view work up to 5x7; for portraits, figure studies, genre and child studies. Class 1.

4567—G. W. Johnson, 30 Mitchell Street, Jackson, Ohio.

Class 3.

4628—B. F. Willard, 339 Claymont Street, Wilmington, Delaware.

Vest pocket to 4x5 and enlargements P. O. P. and D. O. P. of historic views of this and other large cities of the East; interiors, landscapes and miscellaneous; for the same. Only first-class work desired. Class 1.

4712—John W. G. Winkler, L. B. 392, George, Iowa.
Class 2.

4723—Leonard A. Williams, 622 Second Avenue So., St. Cloud, Minn.

5x7 and smaller and enlargements of landscapes and figure studies, commercial art in photography; for subjects that can be used in art classes to get ideas from. Class 1.

4753—John J. O'Doran, 2147 Richmond Terrace, Port Richmond, N. Y.

Exchange landscapes only. Class 1.

INTERNATIONAL PHOTOGRAPHIC ASSOCIATION

- 4772—W. R. Kubley, Argos, Ind.
Class 3.
- 4789—Lewis F. Hile, c/o Intake P. H., Groveland, Cal.
4x5 and post cards of mountain and river scenes in and about Yosemite national Park, child studies, snow scenes and figure studies; for similar subjects, pictorially inclined. I desire only good work, carefully finished, and offer the same in return. Foreign exchanges desired. Class 1.
- 4841—John Falenzki, 121 West Eleventh Street, New York, N. Y.
9x12, post card and 5x7 of high sea storm pictures, marines and foreign views; for anything interesting, also figures and genre. Class 1.
- 4853—J. R. Meservey, Skowhegan, Maine.
Subjects of general interest; for the same. No stained prints or copies wanted. Class 1.
- 4865—H. Cleve Burr, 69 Gt. South Road, Epsom, Auckland, New Zealand.
3¼x4¼, 2½x4¼ of general views of New Zealand; for still life, nature studies, snow scenes and general. Class 1.
- 4881—Norman M. Kastler, 1446 College Avenue, Racine, Wis.
3¼x5½ and smaller, Azo semi-matte and glossy of landscapes, a few historical and a few flower pictures; for the same or anything of general interest. Class 1.
- 4891—Hugo Koehn, P. O. Box 609, Houston, Texas.
2¼x4¼, 3¼x5½ and 4x5 of figure studies, genre and daring girl poses; for the same. Class 1.
- 4908—George E. Lahrs, P. O. Box 889, Dakota City, Nebraska.
3¼x4¼ and 2½x4¼ of nature, historical and other interesting scenes; for the same. Class 1.
- 4911—E. J. Darling, Perkaspie, Pa.
Class 2.
- 4927—J. A. Cornish, 30 McAlpine Street, Toronto, Ont., Canada.
5x7 and smaller of original figure studies and some views; for figure studies, bathing girls and foreign views. Class 1.
- 4993—C. Deyo, 268 Dundas Street, London, Ont., Canada.
3¼x4¼ of Ontario, city and country, miscellaneous and Western; for marine, railroad, city, landscape, bathing girls or anything of interest. Prints only desired and not smaller than 3¼x4¼ preferred. Only first-class work sent out and the same expected in return. If applicants for exchange will enclose three cents in stamps (equivalent to Candian postage) a reply will be guaranteed. Class 1.
- 5005—Harold H. Harriss, 1929 Dwight Way, Berkeley, Cal.
Class 2.
- 5014—G. Ernest Daniell, 286 Coming Street, Charleston, S. C.
Post cards of views of places I have visited, and some Graflex speed work; for similar subjects. I desire to exchange only post cards. Class 1.
- 5015—Carl H. Gissau, 46 Bala Avenue, Bala, Pa.
2¼x3¼ to 5x7 and enlargements of views of Philadelphia; for anything artistic and of good quality. Class 1.
- 5016—B. M. Alberts, Nahcotta, Wash.
Class 2.
- CHANGE OF ADDRESS
- 3255—Sutton, 311 Walnut St., Pacific Grove, Cal.
(Was 175 South First St., San Jose.)
Class 2.
- NEW MEMBERS
- 5074—Henry Herdeman, c/o Allis Chalmers Mfg. Co., Milwaukee, Wis.
5x7 or smaller of miscellaneous; for anything of general interest. Class 1.
- 5075—Paul M. Elder, Box 155, Spirit Lake, Idaho.
Class 2.
- 5076—William S. Burgess, 294 Dufferin Avenue, London, Ont., Canada.
4x5 and 3¼x4¼ of miscellaneous views; for anything of interest. Class 1.
- 5077—Ruth Dunston, R. R. No. 3, Forest, Ont., Canada, c/o Mrs. H. Vivian.
2½x4¼ glossy will exchange for landscapes, animals and any natural scenery. Class 1.
- 5078—Dan K. Usery, P. O. Box 495, Canyon, Texas.
Class 3.
- 5079—L. E. Wyman, 3965 Dalton Avenue, Los Angeles, Cal.
Class 2.
- 5080—Ormison O. Hilborn, Route No. 4, Box 3, Ionia, Mich.
4x5 to 8x10 on Arturo, Cyko and Haloid of landscapes, figure studies; for landscapes and figure studies of a pictorial nature. Only good work sent and expected. No post cards. Class 1.
- 5081—Kenneth Clinton Brown, 812 28th Street, Sacramento, Cal.
Class 2.
- 5082—Albert A. Soon, 422 Wyllie Street, Honolulu, Hawaii.
Class 3.
- 5083—H. C. Ferris, 4051 Umatilla Street, Denver, Colo.
2¼x3¼ up to 5x7 of any subject, including mountain views; for bathing girls, figure studies and poses, landscapes and marines. Class 1.
- 5084—Joseph P. Fuller, T. & T. Bridge Gang, Stag, Cal.
3¼x4¼, 2¼x3¼ and 4x5 of landscapes, marines, mountain scenery and miscellaneous; for the same. Class 1.
- 5085—U. W. Tryon, 327 Sargent Street, Kendallville, Ind.
4x6 to 8x10 of views, portraits and commercial; for views, buildings and street scenes. I desire only first-class work. Class 1.
- 5086—Emmett K. Emslie, 2109 Bagley Street, Flint, Mich.
1½x2½ to 3¼x5½ and larger of Arizona Mountains, cliff dwellings, and Grand Canyon scenes in Kansas, Ohio and Michigan, also nature studies; for figure studies and anything of general interest. Class 1.
- 5087—Percy C. Bowen, 220 Newark Avenue, Bloomfield, N. J.
Class 2.
- 5088—Arthur W. Courtney, 292 West Fourth Street, New York, N. Y.
Class 2.
- 5089—Albert A. Loomis Jr., 60 Third Avenue, Berea, Ohio.
2½x4¼ to 5x7 of locomotive and railroad views and pictures of general interest; for locomotive and railroad views. Class 1.
- 5090—Hugo Lindquist, 2425 East First Street, Duluth, Minn.
Class 3.
- 5091—Gordon Wray, 69 Elmwood Avenue, London, Ont., Canada.
Vest pocket and 4x5 of miscellaneous; for anything of interest. Class 1.
- 5092—E. C. Spray, Cottage Grove, Oregon.
Class 2.
- 5093—L. Pritzker, 1893 Pendrell Street, Vancouver, B. C., Canada.
Post card of 6¼x8½ of mountain scenery and historical; for notable persons, curious pictures, landscapes, animals or birds and events. I desire to exchange preferably 6¼x8½ glossy. Class 1.
- 5094—V. Max Kenery, c/o Lorain Steel Co., Johnstown, Pa.
Class 2.
- 5095—Clarence M. Cornish, 12 Inman Street, Cambridge, Mass.
2½x4¼, 2¾x4¾ and 3¼x5½ of athletic events, scenes on auto tours and of general interest; for general subjects. Class 1.
- 5096—S. Ella Jorgensen, Box 16, Tomales, Marin County, Cal.
3x5½ of miscellaneous; for lighthouses and foreign exchange. I desire only post cards. Class 1.
- 5097—Robert L. McColm, 292 Woodside Avenue, Newark, N. J.
2¼x3¼ of sunsets, woodland and Florida views; for sunsets, genre and woodland. Class 1.
- 5098—E. J. Kister, 7318 Hermitage Street, Pittsburgh, Pa.
Class 3.

NOTES AND COMMENT

A Department Devoted to the Interests of our Advertisers and Friends
In it will be found much that is new and of Interest

While the notices under this heading are strictly in the nature of information and news for the benefit of the reader, and are neither paid for nor actuated by our advertisers, we are compelled by the Postal Laws to mark them as follows:—Advertisement.

Reported by Wm. Wolff

J. A. Meisu is opening a fine new ground floor studio in Willows, Cal. His own building. Mr. Meisu was formerly in Eureka, Cal., and then went East. Welcome home.

Frank Beach of Fresno has sold his business to The Bushnell Studios of Los Angeles, who have other branches in Sacramento and Oakland.

Frank Kamiyami of Fresno has entirely recovered from his recent illness.

J. H. Thullen of Merced takes over the studio at Del Monte, Cal.

Miss Owens of Ing & Allen Drug Co. Sacramento, is certainly looking fine these days.

F. R. Shiffert & Son of Modesto are doing a large Kodak finishing business. They also have a nice stock of stationery and photo supplies.

A. G. Shahbazian of Fresno is glad the holidays are over, he was very busy and can now take a needed rest.

Mose and Anna Grady, who have one of the largest studios in Seattle, were in San Francisco after the holidays to see their old friends and the writer.

A. C. Henline reports his holiday business at Klamath Falls, Ore., was up to the standard and he was well satisfied. His helpmate was his able assistant.

R. J. Fitzsimmons

We regret to announce the death of R. J. Fitzsimmons, which occurred December 20th, 1921, at his residence, 204 W. 129th Street, New York City, after a short attack of pneumonia. Camera Craft extends its sincere sympathy to the bereaved widow and young daughter, who survive.

R. J. Fitzsimmons has long been an advertiser in this magazine, he was a man much interested in color photography and did much to popularize it in a commercial way. His advertisement of the Lumiere Autochrome Plates and Griffin Plate Developing Tanks was a standing feature of our advertising section.

Focus Finder

Among photographers, there exists a universal desire to know when the picture is sharp on the film or plate of their hand cameras. It is a very delicate question when photographing close up, making a portrait for instance, pictures of flowers or anything that needs careful focusing to make a guess of it. One can use a tape line and measure the distance, undoubtedly this is better than guessing, but there are other ways, the Focus Finder, for instance.

The Focus Finder is a wonderfully ingenious contrivance, a scientifically constructed miniature telescope, fixed to the bed of the camera permanently and what is important, easily accessible. In focusing the lens of your camera the lever is used for a double purpose, it not only adjusts your lens, but it is made to actuate the focus of the Focus Finder. The two work in unison, and thus, if the Focus Finder is racked into focus, the lens must be in focus. The reader must not confuse this finder with the view finder attached to his camera. They both serve different purposes. The view finder gives a miniature picture of what will appear in your negative. The Focus Finder will show you only a portion of your picture and naturally on a larger scale, this adds to convenience and the moment you

NOTES AND COMMENTS

know the principal object in your negative is sharp, you know everything necessary. By snapping your shutter then, you need not worry yourself with the questions, "I wonder if that picture is in focus?" or "had I not better make another negative and change my distance a little?" You see the point? You do not have to make that other negative on account of doubtful focusing, you can save that extra film; in a twelve month you will surely save many films, those duplicates made when doubtful and those that were discarded through faulty guessing. Put these losses together and it would not take very long to save the price of the Focus Finder.

Look into this. Ask your dealer about it, if he can not give you a satisfactory answer (as it is quite a new thing) write to the Port Townsend Camera Company, Port Townsend, Washington, for full particulars. The advertisement of this Company will be found on another page of this magazine.—Advertisement.

New Haloid Agency

The Haloid Company of Rochester, New York, have established a branch in San Francisco.

Arthur A. Muhl, formerly assistant manager of the Eastman Kodak Company's branch in this city, is now in charge of the Pacific Coast interests of The Haloid Company, with office and warehouse at 220 Post Street, where a large stock of Haloid products will always be on hand.

Mr. Muhl has an extensive circle of friends in the photographic fraternity of this coast, and all wish him the greatest success.—Advertisement.

"Accidents Will Happen"

In order that we might catch up with our publishing dates it was also necessary for us to produce the January number of Camera Craft in three weeks, and that constitutes the last lap of our undertaking.

The January number, increased by sixteen extra pages, did not make our work one bit lighter, we assure you; but we were on time. Everybody had to put their best foot forward including the printer and in the effort some one blundered by misplacing a cut. It is easy for such an accident to happen, and it was on account of that

regrettable oversight that the illustration for "A Real Reflex Camera at the Remarkable Price of \$13.50," was misplaced. This cut really belonged with the announcement of the New York Camera Exchange, 109 Fulton Street, New York, N.Y.

On the other hand, the advertisement of the Gundlach-Manhattan Optical Co., Rochester, N. Y., for their Korona Cameras, Turner-Reich Anastigmat Lenses and other photographic apparatus, was embellished with the Reflex Camera cut.

We hope this accounts for the seeming incongruity between the cuts and the texts of the advertisements of Gundlach-Manhattan Optical Company and the New York Camera Exchange.

The Direx Process

On another page of our magazine the reader will find a new announcement. It relates to the direct method of photography. We are told "there is nothing new under the sun." Strictly speaking, there may not be, but read this advertisement carefully and you will conclude that here is the very latest, and you should be interested on that account.

We asked The Positype Corporation of America to send us some sample prints on Direx paper, which is their product. We received these prints, which not only surprised but pleased us as well. One of the prints, a cloud study, was made directly in the camera from nature. That means when the exposure was developed it came out a positive and not a negative, as is usually the case. The photographer saw at once what his picture was like, without making a print.

In the majority of cases one print is all we need, and we have saved the cost of a negative and other work connected with it. But supposing that particular picture is such that we want duplicates of it, all we need do is to make as many copies as required on Direx paper or board in the camera.

It seems to be the habit of some, including the writer, to accumulate a quantity of negatives with the intention of making prints probably one from each, on some future time. Do we do it? Some of us do not, though we continue making neg-

CAMERA CRAFT



A DIREX COPY

atives, and perhaps lose interest in many of our stock; these never get printed. It is probably a fact that we would not care for more than one print from 90 per cent of our negatives. This idea is perhaps worth considering. It is likely to save trouble and expense.

Here is a cut of a Direx copy made from a Direx print secured in the camera. It will give you some idea of the merits of the process. If you are interested, write to The Positype Corporation of America, 246 Fifth Avenue, New York City, and will receive all particulars.—Advertisement.

PATENTS ISSUED IN SEPTEMBER

- 1389827 Register for Cameras. S. L. Hogan.
- 1390252 Color Photography. J. F. Smith.
- 1391310 Color Photography. W. F. Greene.
- 1392144 Portable Camera Support. S. R. Gray.
- 1392207 Projection Apparatus. H. N. Ott.

TRADE MARKS

- 146748 Photographic Developers. G. C. Gennert.

PATENTS ISSUED IN OCTOBER

- 1392516 Photo-film Clip. L. F. McKelvey and J. A. Bradenburger.
- 1392759 View Finders for Photographic Cameras. J. Goddard.
- 1393108 Daylight X-Ray Film Developing Tank. J. B. Garrett.
- 1393109 Film Developer. J. B. Garrett.
- 1393793 Camera. C. J. Kryzanowsky.
- 1393829 Camera. A. H. Roikjer.
- 1394047 Camera. S. C. Swann.
- 1395214 Camera Shutter Release. A. S. Warne.

TRADE MARKS

- 147291 Photographic Dry Plates, including X-Ray Dry Plates. G. Cramer Dry Plate Company.
- 147328 Photographs, Photographic Prints & Commercial Photographs, The Heiser Company.
- 147397 Photographs and Illustrations. E. M. Rudd.

CAMERA CRAFT



SAN FRANCISCO
CALIFORNIA

JUST A HINT

OF THE GOOD THINGS COMING

The Camera in Detecting Crime

A method of discovering forgeries.

Studio Accounting

Illustrated with graphs.

Greeting Cards Made at Home

With hints of the unconventional.

Lantern Slides

Novel effects produced by toning.

Pen Drawings

Describes the use of a photographic base for intaglio etchings.

Post Cards

A new method of developing them.

Commercial and Portrait Photography

Personal experiences of successful professional photographers.

Kite Photography

The results of an experimenter's efforts.

Photographic Sidelines

A continuation of the intimate articles supplied by various writers on this interesting subject.

Photostat Work

A practical treatise on this subject.

CAMERA CRAFT PUBLISHING CO.

Claus Spreckels Bldg.

San Francisco

California



CAMERA CRAFT

A Photographic Monthly

Entered at the Postoffice in San Francisco as Second-Class Matter. Copyrighted, 1922, by Camera Craft Publishing Co.

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APPLICANT FOR MEMBERSHIP IN THE AUDIT BUREAU OF CIRCULATIONS.

Expirations—Subscriptions to Camera Craft are discontinued on date of expiration. Your wrapper address shows your expiration date. **Renewing**—In renewing a subscription, do not fail to say that it is a renewal, giving name and address just as now on the address label. **New Address**—In notifying us of a change of address, give both the old and new address. Should you miss a copy through change of address, advise us of the fact, and another will be gladly sent. **Dealers**—All photographic supply dealers and new dealers are authorized to receipt for subscriptions in our name.

Subscription Price, \$1.50

Canada, \$1.75

Foreign, \$2.00

Camera Craft Publishing Company, Claus Spreckels Building,
San Francisco, California.

FOREIGN AGENTS

Australia	Harringtons, Ltd., Sydney
England	Kodak, Australasia, Ltd., Sydney
Malta	Francis Collas, 3 Wine Office Court, Fleet Street, London, E. C.
	Do Agius Catania, 41, Sda. Reale, Valletta
New Zealand	Richard Hill, Matlock House, Devonport, Auckland
	Waterworths Limited, 58 Queen St., Auckland
	Waterworth's Limited, 286 Lambton Quay, Wellington
Philippine Islands	F. O. Roberts, Manila
Japan	K. Kimbel, Yokohama
China	Squires, Bingham & Co., Shanghai
Scotland	Robert Ballantine, 103½ St. Vincent St., Glasgow

You Professionals of California

Mr. Felloes says:

You missed it! The convention at Kansas City was wonderfully inspiring and instructive.

The professionals from California could not swing the next convention to this state because we were not behind them. We have a chance for the 1924 convention with your cooperation.

Get Behind and Push

A meeting will be held for the purpose of forming a PHOTOGRAPHERS' ASSOCIATION OF CALIFORNIA at SAN FRANCISCO on June 6th at Solari's, 354 Geary Street, at the dinner hour of 6:30 p. m.—cost of plate, 1.50.

Show Your Interest

Ralph Young of Lothers & Young, was elected Vice-Chairman of the Commercial Section of the P. A. of A., Southwest District. He will show the motion picture entitled "A Trip Through Filmiland," by courtesy of the Eastman Kodak Company and will talk on the latest developments in photography.

Mr. Felloes will tell of some of the interesting phases of the Kansas City convention.

Advise us to reserve your plate for you. For your use we are printing a coupon in another portion of our advertising pages for this purpose.

Camera Craft Publishing Co.

Claus Spreckels Bldg., San Francisco, Calif.



CAMERA CRAFT

A Photographic Monthly

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Subscription Price, \$1.50

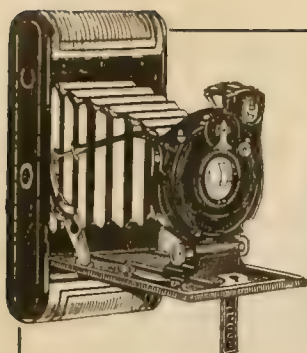
Canada, \$1.75

Foreign, \$2.00

Camera Craft Publishing Company, Claus Spreckels Building,
San Francisco, California.

FOREIGN AGENTS

Australia	Harringtons, Ltd., Sydney
England	Kodak Australasia, Ltd., Sydney
Malta	Francis Collas, 3 Wine Office Court, Fleet Street, London, E. C.
	Do Agius Catania, 41, Sda. Reale, Valletta
New Zealand	Richard Hill, Matlock House, Devonport, Auckland
	Waterworths Limited, 58 Queen St., Auckland
	Waterworth's Limited, 286 Lambton Quay, Wellington
Philippine Islands	F. O. Roberts, Manila
Japan	K. Kimbel, Yokohama
China	Squires, Bingham & Co., Shanghai
Scotland	Robert Ballantine, 103½ St. Vincent St., Glasgow



You Save \$22.63

on one of these

**Brand New
Eastman**

No. 1 Autographic

Kodak Specials

2 1/4 x 3 1/4

With ILEX Acme Shutter

Now **\$27.37**

Grain-leather case for same, \$3.50, Postpaid

Fitted with Kodak Anastigmat Lens, f-6.3, and the popular Ilex Acme Shutter, body of aluminum, covered with the finest quality long-grain leather, nickel-trimmed. Former model not now listed by manufacturer.

You will never be able to duplicate this camera bargain after this lot is sold.

CHAS. G. WILLOUGHBY, Inc.

110 W. 32d Street, New York City

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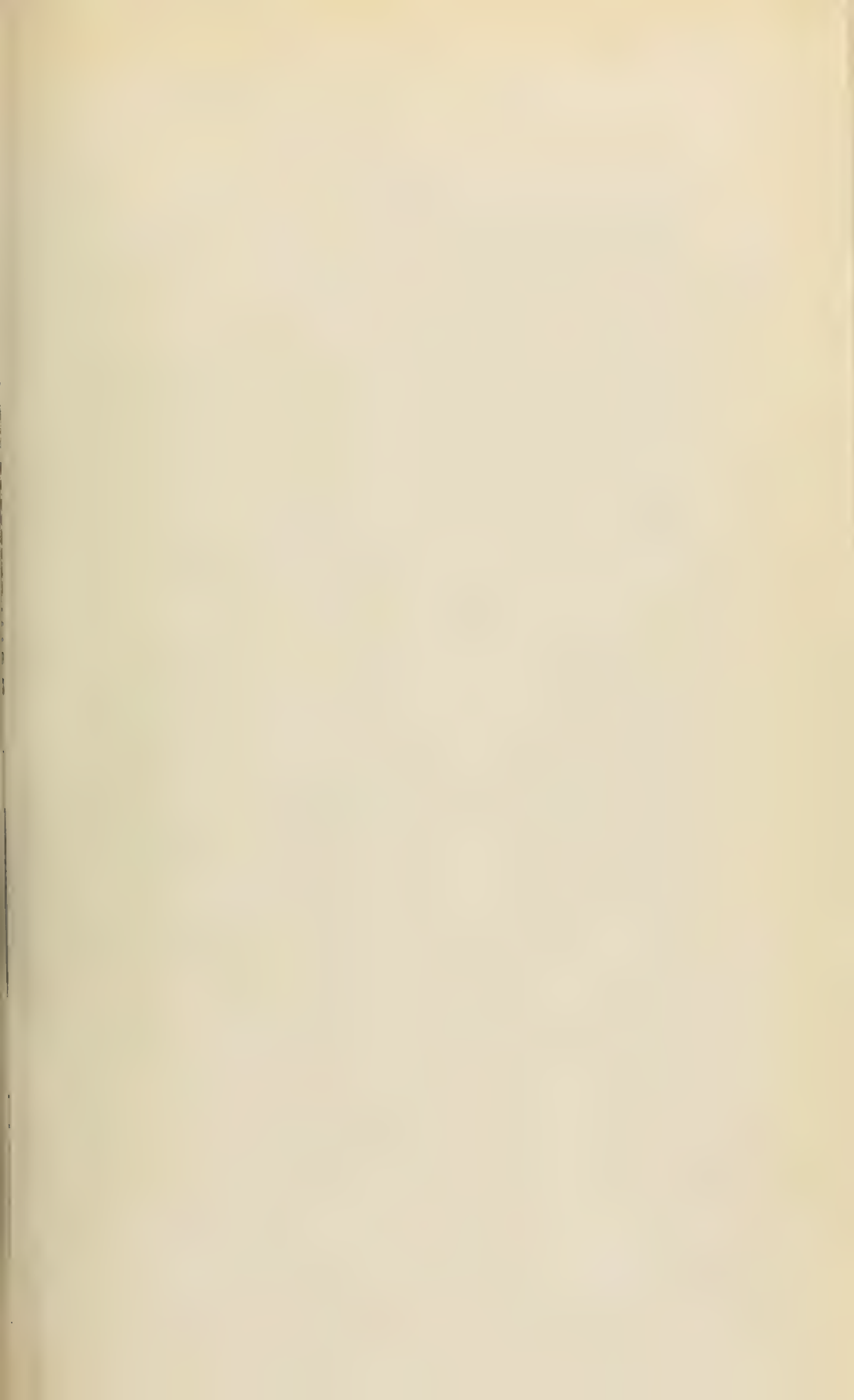
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A PHOTOGRAPHIC MONTHLY

H. D'ARCY POWER, M. D.
Editor-in-Chief

EDGAR FELLOES,
Associate Editor

CLAUS SPRECKELS BLDG.

SAN FRANCISCO

CALIFORNIA

VOL. XXIX

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No. 6

The Pictorial Photographic Exhibition of San Francisco

By Edgar Felloes



With Reproductions of Some of the Pictures

The following is reprinted from the Society's Catalogue:

INTRODUCTORY

It was with varied anticipations that our young organization and the Salon Committee in particular looked forward to the first of our annual Exhibitions of Pictorial Photography. It was a question whether we could expect the contributions that would permit the first exhibition to be a fully representative presentation of as high or higher standard than that of the best of the old established Salons, which high standard has been our one inflexible premise. With the arrival of contributions, however, all uncertainty disappeared and was replaced by a firm confidence that the exhibition would be adequate and representative of the very best in pictorial photography.

The exhibition as finally selected contains the work of a majority of the foremost pictorial workers of the United States and of a substantial number of those of Europe. It contains examples of practically all of the

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various media of photographic art, the Gums, Bromoils and Bromoil Transfers being representative of the so called control processes and the Bromides, Platinotypes and Palladiotypes representing work which adheres more closely to straight photography.

In its selection the jury has been free from instructions, save the one, that there should be no partiality or prejudice to any particular medium or school of expression. It has been painstaking in its work, considering as a whole, on the wall, the work of each contributor and no print has been selected or rejected until it had received the fullest consideration. For such care, aside from the substantial time and effort involved, the Society extends to the members of the jury its sincere appreciation and gratitude.

Through the interest of Mr. J. Nilsen Laurvik, Director of the San Francisco Museum of Art, and his appreciation of the aims of the Society the facilities of the museum have been made available, facilities that permit of the best possible manner of presentation, and for which we are deeply appreciative and grateful.

In the fall of 1921 the Photographic Section of the Oakland Municipal Art Association held the first of a proposed series of annual Exhibitions. It is recognized that Oakland and San Francisco are in such close proximity as to make separate annual exhibitions inadvisable and accordingly arrangements are now in progress to the end that the exhibition for next year will be under the joint auspices of the two organizations and will be shown in both cities.

THE PICTORIAL PHOTOGRAPHIC SOCIETY of San Francisco



REPORT OF THE EXHIBITION

There has been considerable interest and activity among the Pictorialists of this city for some time past. It was the feeling among photographers here that San Francisco should have a yearly photographic exhibition of her own, as we realized we had the necessary talent upon which to lay a foundation.

As the time approaches for this Society's venture, it is interesting to note the methodical way in which the business of the committee is being carried out. There is no excitement, no hurry or bustle, there is nothing but work for all.

The show, please remember, will be opened to the public at the Palace of Fine Arts on May 19th and the aim of everyone is to be on time. On Tuesday last, the Jury of Selection was to begin its duties and it might be said here, that each member of this jury had served in like capacity before. The gentlemen selected to fill the responsible position were as follows:



"MISS HAWTHORNE WOOD"
(San Francisco, 1922)
By LIONEL WOOD, F.R.P.S
London, England

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W. H. Clapp, Director Municipal Art Gallery, Oakland.

John Paul Edwards, Photo Pictorialist.

Sigismund Blumann, Efficiency Engineer.

Jesse T. Banfield, Photo Pictorialist.

Edgar Felloes, Associate Editor, Camera Craft.

The pictures were selected by the elimination method, conducted in the following way: The entire contribution from each exhibitor was placed by itself on the wall. There was nothing to detract one's attention from that particular exhibit, and so we went to work voting on the merits of each picture in comparison with its neighbor. If one of the set of six pictures or less, stood out from the rest of the examples, it was set to one side as accepted, pro tem. We then turned our attention to the remainder, discussing and voting in turn. Three votes were necessary to elect.

In every case where we failed to secure those three votes, the picture in question was reserved for later consideration. There were some instances where the picture was of such a quality that the vote of acceptance was unanimous, this was indeed gratifying, but it did not happen too often.

It took us two evenings or nine hours to accomplish our first selection and another evening to go all over the selected work in the same manner. Thus we eliminated more, for we deemed an exhibition of 325 prints would be ample. As we had exceeded this number, it was necessary to repeat the pruning, now becoming more difficult. On our next count there remained 340 prints and so this judging was accepted at 31½ per cent of the total number of prints submitted. The jury of five had given thirteen hours to the work of choosing 340 prints from a total of 1079 submitted by 206 contributors.

There are some remarkable pictures on view at The Pictorial Society's Exhibition and here is a partial list of talented contributors:

Capt. Alfred G. Buckham, F. R. P. S., London, England, sends three remarkable works. The one entitled "Strife" appears to be the favorite. It shows an airplane acting as scout to a battleship, which rushes on at top-most speed. This picture is most dramatic in its conception and there is little doubt but it will grace the walls of many homes. "Two Miles Above the Earth" and "The Rain Storm," are also unusual in interest and craftsmanship.

Marcus Adams, London, England contributes three portraits, "The Dutch Child," "Diana Wilson," and "Child Study." These are all good, but we like the first named particularly well.

Wm. A. Alcock, New York, has four prints, "Hard Going," "Whirlpool Rapids," "Junk for Sale," and these provide an interesting set for study.

P. Douglas Anderson, San Francisco, Cal., shows three prints, "Solitude," a beautiful composition. "The Home on the River," quite Japanese in feeling and "The Open Gate," a composition of broad treatment, with the figure in excellent proportion.



"FALAISE, NORMANDY"
(San Francisco, 1922)
By DR. A. D. CHAFFEE
New York

FOR THE PROFESSIONAL

Laura Adams Armer, Berkeley, Cal., "Springtime," a picture of lad and lass in a boat, both in white, this is a little poem in picture and will receive much attention. "The Hills of Longevity," an oriental still life, a clever composition, and "Kuan Ti," another still life study.

Edwin C. Arnold, Oxnard, Cal., "The City on the Hill," very aerial in rendering.

F. C. Baker, Cleveland, O., three prints, "Smoking Stacks," his best.

Jesse T. Banfield, San Francisco, Cal., three pictures, "Zabalita," quite striking.

George F. Belden, San Francisco, Cal., one picture but very good, "In the High Sierras."

Cecil W. Bostock, Sydney, Australia, "The Debut," a doll on a miniature stage. This contains real merit.

Alice Boughton, New York, "Spanish Revel," worthy of study.

Anna Brigman, Oakland, Cal., has five pictures of decided individuality. "Sanctuary" is perhaps her most striking effort.

Alfred Brinkler, Portland, Maine, has two gum prints, "Floating Mists," our choice.

Charles H. Brown, Santa Barbara, Cal., two excellent portraits.

Dr. A. D. Chaffee, New York, shows five masterly bromoils. We reproduce one of them, "Falaise, Normandy." All these prints are worthy of study.

Bianca Conti, San Francisco, Cal., has four striking portraits. The picture of her little son is very beautiful and the others are full of interest.

William E. Dassonville, San Francisco, Cal., two portraits, a landscape and a study of architecture. The portrait of "Col. C. E. S. Wood" is both artistic and a fine likeness, and "Mission San Juan Bautista" a fine study in sunlight and halftones.

James N. Doolittle, Los Angeles, Cal., shows four pictures. "The Gamblers," we think his best and "Etude Orientale," a charming little conceit.

John Paul Edwards, Sacramento, Cal. This artist shows five pictures of most even quality. We have reproduced "Towers of Manhattan," we might have used any one of the remaining four prints, so little choice is there between them.

To the younger generation of photographers this exhibit should prove most helpful. It is a protest against trickery, against fadism. It is downright and honest. You are not asked to throw a fit over a triangular patch of sunlight flirting with another triangular patch of shadow. You are not required to "smell" the picture to unravel the maker's intention. There is no attempt to fool you that because a work is involved it therefore is art. On the other hand, you are given a bit of nature in a varied and elevating mood, and you are invited to enjoy it.

THE PICTORIAL PHOTOGRAPHIC EXHIBITION OF SAN FRANCISCO



"THE TOWERS OF MANHATTAN"
(San Francisco, 1922)
By JOHN PAUL EDWARDS
Sacramento, Cal.

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Such is Edward's aim, to be natural, and to give happiness to the greatest number—of sane people.

Maude Lee Eldridge, Corona, Cal., "Young Navigator," an excellent little genre subject.

Louis Fleckenstein, Los Angeles, Cal., exhibits four portraits in double toning. "His First Overcoat," a child study, will be the most popular, but the entire exhibit will attract attention on account of treatment.

Chas. K. Archer, Pittsburgh, Pa., has three pictures, "The Devil's Cauldron," is a very unusual subject.

Laura Gilpin, Colorado Springs, Colo., shows four pictures of high merit.

L. A. Goetz, Berkeley, Cal., comes forward with five pictures. Goetz has discovered a new love, bromoil, and his work in this medium is astonishingly good. The balance of the exhibit is along familiar lines and treated in a masterly way.

Johan Hagemeyer, San Francisco, Cal. An artist of decided individuality. There is a bigness about Hagemeyer's treatment which always draws attention. Four of his pictures are on the walls.

Forman Hanna, Globe, Ariz., has three prints, "Sunlight Taos," "Girls of Walpi" and "Wood Carriers," all showing merit.

G. H. Harding, Berkeley, Cal., is represented with three works, his "Low Tide," particularly commends itself.

G. W. Harting, New York, three prints, the portrait of Mrs. C. B. Fall is very attractive. "In Greenwich Village," we have a very successful street scene.

C. M. Harris, Alameda, Cal., presents "The Shrine of Knowledge," very good.

Anson Herrick, San Francisco, Cal., has four pictures to his credit. "The City Hall Interior" and "The Bank" are very well carried out and will add to his reputation.

Henry A. Hussey, Berkeley, Cal., shows three pictures, all good. We were greatly attracted with "Decorative Design," which would make a beautiful mural painting.

Dr. Chas. H. Jaeger, New York, has a set of five small pictures, each one a little gem and will repay close inspection.

Dr. E. O. Jellinck, San Francisco, Cal., has one print, "The Fountain of Youth," a beautiful print, a happy splash of sunshine.

H. E. Jettsch, New Jersey, "Marios Place," a delightful street corner scene.

Myers R. Jones, Brooklyn, N. Y., exhibits two striking works, "Mt. St. Michel," and "La Porte Marechale."

Fred Judge, F. R. P. S., Hastings, England, shows five prints. "The Return of the Flock," and "Wild Wales," are particularly attractive.



"A DESERTED MILL"
(San Francisco, 1922)
By JOHN M. WHITEHEAD
Alva, Scotland

CAMERA CRAFT

Arthur F. Kales, Los Angeles, Cal., is one of the big ones to the south of us. Kales makes a specialty of bromoil transfers, he generally confines himself to portraits and figure studies, but we have reproduced a view of his to show this artist's versatility.

Consuelo Kanago, San Francisco, Cal., one print entitled, "Over the Clothes Line," an instance to prove pictures are found everywhere, when the eye is in sympathy.

Alex Keighley, Steeton, England. Five of this artist's work are offered for your attention.

Dr. T. W. Killmer, New York, contributes two excellent gum prints.

Sophie Lauffer, Brooklyn, N. Y., has had four of her prints accepted.

Francis Orville Libby, Portland, Maine, upholds his reputation with three pictures.

C. A. Love, San Francisco, Cal., shows three pictures, "On the Seventeen-Mile Drive," we judge his best.

Dr. Rubert Lovejoy, Portland, Maine, Ben. J. Lubsches, New York, Robert R. McGeorge, Buffalo, N. Y., each submit two prints.

C. J. Marvin, Los Angeles, Cal., Oscar Maurer, Los Angeles, W. E. Macnaughton, show three prints each.

N. P. Moerdyke, Los Angeles, Cal., contributes four gums, "On the Ways," we thought stunning. All these prints are masterly and show the beauty of the process.

Nickolas Muray, New York, has had his full complement of pictures accepted.

Percy Neymann, P. H. D., sends five examples of his work. "Louis XI" is considered his best.

J. Noguchi, Honolulu, has three prints. "The Open Book" is his best.

Mme. d'Ora, Vienna, Austria, has three excellent portraits here.

Bertram Park, London, England, also has three portraits.

A. Petersen, Hamburg, Germany, three prints of which "Labor," and "The Bridge," are particularly good.

Joseph Petrocelli, Brooklyn, N. Y., three pictures, "The Curb Market," probably his best.

Jane Reece, Dayton, O., has four very meritorious compositions.

O. C. Reiter, Pittsburgh, Pa., is well represented with his three prints.

Adge Remfeldt, Kristiania, Norway, three pictures. The portrait of Mrs. R. appeared in Camera Craft in the May issue, under Pittsburgh Salon pictures.

Otto C. Schulte, San Francisco, is represented by two prints.

Thomas O. Sheckel, Salt Lake City, Utah, has three excellent prints, "The Pasture Fence," appears to be a favorite.

Chas. Smith, San Francisco, Cal., shows among his three prints a little gem entitled, "Morning Sun and Shadow, Jerusalem."

John Steinke, Cleveland, O., one print, a still life, "The Watchman's Hour," which we reproduce.

THE PICTORIAL PHOTOGRAPHIC EXHIBITION OF SAN FRANCISCO



"NORTH RIM, GRAND CANYON"
(San Francisco, 1922)
By ARTHUR F. KALES
Los Angeles, Cal.

CAMERA CRAFT

H. Y. Summons, Virginia Water, England, three remarkably interesting works, "A Florentine Landmark," is a beauty.

Will H. Walker, "The Life Boat," is illustrated elsewhere to accompany his story, "The Making of a Picture."

A. S. Weinberg, Groningen, Holland, four excellent carbons.

Edward Weston, Glendale, Cal., a most interesting exhibit of five pictures.

Clarence White, New York, shows the full compliment of six pictures.

John M. Whitehead, Alva, Scotland, shows four prints, we present a reproduction of his, "A Deserted Mill."

Lionel Wood, F. R. P. S., Brighton, England, has four pictures, we reproduce the portrait of "Miss Hawthorne Wood," the picture that won 200 pounds sterling, or approximately \$1,000.00 in the Wellington Photographic competition at London.

There are many pictures of high merit in this exhibition not mentioned in this account; it is unavoidable. These works will not suffer, for they will attract from the walls. The exhibition is a remarkably good one and many examples here are quite the equal of the best to be found in any city.

There is no doubt that exhibitions of this kind will be productive of much good to some of the innumerable camera enthusiasts. The example is set for them and they can glimpse the possibilities of this still young art—photography.

Photography and its allied processes stand at the head as a teacher today, and everything calculated to advance the art should be given every encouragement by the community.


A KODAK TANK HINT—The makers of the Kodak Film Tank explicitly state that one tank (solution cup) full of developer must be used for one film only. But the solution has sufficient Pyro in it to develop a 12-exposure roll of film, so why not two 6's? I have done some experimenting and I find that one can develop two 6-exposure rolls in one tankful, and the resulting negatives on the second roll are cleaner and brighter than those on the first. The first film is run through in the usual manner and the developer is carefully drained from the reel holding the apron and film, as we must have enough developer to fill the cup to the embossed ring the second time. The second film is treated exactly as the first, according to the directions in the booklet accompanying the outfit, but is developed for a longer time. I have found that if the temperature is between 65 and 70 deg. Fahr. the time should be increased 3 minutes; between 60 and 65 deg. 4 minutes; between 55 and 60 deg. 5 minutes. Try it!—Carl W. Beese, Fenwick, Ont., Canada.



"ALDIS BARTLETT AS GASPARD"

(San Francisco, 1922)

By PERCY NEYMANN, Ph. D.
San Francisco, Cal.



On Judging Pictures

By Sigismund Blumann



The outstanding and unfortunate factor that makes the critics' calling particularly hateful is that his judgment is not accepted as applying to the product but carries over to the producer. The artist who has made a picture, for instance, rarely takes his place beside the judge to estimate that picture as a thing, but insists on having it representative or a part of himself. Quite humanly natural, too. You cannot question the baby's beauty without offending the parent.

All men (and certainly all women) have idiosyncrasies of taste which go contrary to their studied knowledge and to established rules. It has been said that great men make laws and mediocre follow them. Therein lies danger.

In art the basic, correct principles are not (as I have said on these pages before) arbitrarily made. They are not conceived by individuals as a matter of mere fancy. They are laws of Nature—such laws of nature as pertain to the subject.

As an example of the force of the laws underlying judgment might be quoted this remarkable incident. On the Salon jury (the exhibition is reviewed elsewhere in this issue by the Editor) were five men of different tastes and firm convictions. Arguments arose and differences were debated very warmly at times, but when a certain print of Kales came before the judges there was an immediate unanimity of opinion; it was fine. Now it is impossible to believe that five divergent temperaments were unified without a strong force and the deduction is that this force lie in the picture. It conformed to rules and standards which transcended idiosyncrasies. It approached a single unit, acceptable to all as **the** standard—Perfection.

Thus, curves are expressive of softness, and of emotions of ease, gentle sentiments and so forth, not because Hogarth or farther back the Greek creators of Fine Arts so ordered, but because nature has proven the case inexorably. Similarly the qualities of straight lines and angles may be respectively defined and accepted as having qualities and conveying emotions of their own. Design, pattern, proportion, perspective, atmosphere, light and shade are not words applied by men to suit their own ideas to things, but inherent qualities.

Now Shakespere says that Art should hold the mirror up to Nature and for once the master has stated a half truth which carries a wholly wrong meaning. All that duplicates or simulates Nature is not Art. It must be within the limits of Truth to be Art, but it must also be selective.

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"THE WATCHMAN'S HOUR"
(San Francisco, 1922)
By JOHN STEINKE
Cleveland, Ohio

ON JUDGING PICTURES

All odors affect our nostrils, but all odors are not comprised in the ancient art of perfumery. The reek of onions and the stench of limburger cheese are real and natural, but they are not fragrance.

Originality is a noble asset for an artist, but must not be confounded with transgression. Breaking rules and laws is not novel or original. Adam and Eve began that practice. Also it is easier to do without rules than to follow them, since it requires no knowledge. Inclination goes along the line of the least resistance whereas the divine flame blazes at the top of a high mountain.

Great artists are such as can achieve something new out of the material which is as old as Earth itself. They are never hampered by laws but utilize them in their creative purpose.

The critic is therefore bound to right and the laws underlying right in quite the same way. To judge from standards arrived at through his own peculiar tastes or whims would be analagons to saying that all who do not approach those whims shall be condemned and all who achieve them absolutely shall be adjudged as great. It were as unjust as egotistical. A picture must be judged by established standards. The fundamental principle of a true Art critic must be conservatism. That conservatism is the solid rock on which the edifice of his judgment stands. Upon it he can rear a solid structure of constructive criticism.

But it must not be understood from this statement that conservatism implies a rigid, bigoted adherence to the ultimate letter of the law. I am speaking to persons of discernment and understanding and they will take me aright.

Exceptions shall ever prove the rule. The Divine Hand that paints the sunset on the canvas of the firmament has done wonderful things in coloring—combinations that seem to belie our formulated tenets of harmony. Careful study conciliates the opposing factors and the seeming paradox becomes a simple and plain verification.

The newer art of Wagner shocked his contemporaries as Debussy and Richard Strauss has shocked us, but nowhere in the music of any of these do we find the laws of harmony transgressed. They have obeyed the inalienable, the irrevocable and achieved a new epoch notwithstanding.

It is the ability to pick the true from the false, the good from the bad, the novel, revolutionary great work from the wild, ungoverned, unstudied freak that constitutes a good judge of Art. And in this ability he must have something by which to base an opinion that shall be sound. His judgment must be logical which calls for a common premise. That premise is, that however Art may transcend Nature it must yet be based thereon. That the laws of Art are the laws of Nature and that these laws, which necessarily are as old and as conservative as Nature herself, constitute him by that much a conservative.



The Little Folks

By Walter C. and Thomas M. Jarrett



With Pictures and Frontispiece by the Authors

(Note: It was a matter of chance that we happened to run across an example of child portraiture made by the Jarretts. The picture came from the Pittsburgh Salon, 1921. A most attractive child she was, a child all over, through and through. There was no suspicion of the over dressed doll, none of a self-conscious tot, but a little human being that everyone could love—this was our introduction to the Jarretts.

The Jarretts, there are three of them, Father, Mother and Son, and the greatest of the three is Mother. Though Father and Son handle the photographic end of this remarkably, successful business, it takes Mother to handle the babies. These tots are natural and we are pleased to introduce you to some of them. The Jarretts have this to say about themselves.—E. F.)

One of the most noticeable drawbacks in making photographs of children is the cautioning of the children before they arrive at the studio to do what the man tells them. They are told to smile and cautioned not to hold the mouth open and admonished in many other ways. By the time the little ones reach us we find them so self-conscious that it takes quite a little by-play to get the youngsters to forget themselves and be natural. Here are a few of the things parents will tell their children to do: Now don't look that way; don't hold your mouth that way; you know you never do that at home; now smile for the man. What child can smile when there is nothing to smile about? What child can be natural when it is so pestered?

We secure the best results by not mentioning expression, position, or any of these things. If the parents would trust the photographer to understand his profession and let him take the responsibility, good results would be more easily secured. We rarely have a child enter the studio that we are unable to get a good expression from by giving them toys to play with, smiling at them one's self, or any method that will produce results. We believe that by treating the children quietly and waiting until they get a little used to the new surroundings of the studio. We do not consider it necessary to make a monkey of one's self to secure this end either. We obtain smiling pictures of babies only a few weeks old by chirping to them quietly, rather than by any exciting methods.

Sometimes a child will be brought to us that rarely smiles, even at home and the fond mother will expect the photographer to make it smile when it is almost impossible to do so. We think a good sensible picture of a child or baby is just as desirable as one showing a grin, but the photog-



A THINKING LITTLE MORSEL

rapher is there to make what the parents want and do as they wish in some respects.

We do not make nude pictures of children, they may be desirable to some people, but as a rule are anything but beautiful.

Occasionally the father of children we have photographed on seeing the proofs decides they could be improved upon and he tells the rest of the family he will accompany the children to the studio and show the photographer how pictures should be made. After running into the difficulties of lighting, depth of focus, naturalness, etc., he realizes he is not as efficient as he imagined. This is frequently the case where the proud



THE SOFT SIDE OF LIFE

parent owns a Kodak and is in the habit of making snap shots of his children in the back yard at home. Usually the father, after several futile efforts in the studio, suddenly remembers an important engagement down town excuses himself with a promise to return in an hour or so for the children.

There are many amusing experiences in the studio. A short time ago a little fellow about seven years old saw something about me that put him in mind of the "Father of his Country." He said, "You look like George Washington, but he is dead isn't he?"

Frequently fond mother of the child to be photographed will say, "My baby never cries," but before it leaves the studio it is crying its best, but maybe this was the first time.

The very best baby holder is Mrs. Jarrett, she is far better than any so far invented.

Parents are like some photographers, some are sensible and some are not. The sensible ones do not promise the children ice cream, toys, etc., if they "do as the man says" when the child knows that such promises have not been lived up to before.

We love to work with the little folks, of course we have to work to

THE LITTLE FOLKS



EXPECTING THAT "BIRDIE"

live, but there is great compensation in the pleasure we experience with children and we can hardly wait to develop the exposures, so interested are we. Then there is the great satisfaction of pleasing the parents with beautiful pictures of their children. There is nothing they would rather have.

Our whole family is deeply interested in the work. Mother, father and son, we all have our part to do, and mother's is not the least important either, our success is due to her help in handling the babies and children. The three of us are usually around the camera when the exposure is made.

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TAKING REAL COMFORT

We use daylight, arc, nitrogen globes and flash light, which ever suits the subject and conditions best.

We use both plates and films, again conditions determine which. We like plates for softer lower key lightings and films when we are working in windows or where there are very strong contrasts. We are aware opinions differ on this sort of thing a great deal.

The majority of our patrons prefer soft focus pictures. By soft focus we do not mean fuzzy. A soft focus lens improves the looks of a homely child and makes a beautiful one more alluring, at least this has been our experience.

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With regard to developer, we use both the Hammer formula and the Eastman Kodak film formula. We do not quibble on the developer, we feel that if the negative is timed correctly and a standard properly balanced developer used first class results may be expected. The same applies to print developer. We use the regular formulas given by the manufacturers. We have experimented with all sorts of pet developers and have come to the conclusion that the makers of the paper or plate used usually has the better formula, for they, if anyone, would be likely to know what was used in the making of their own respective brands.


In our studio we use Artura, Cyko and Velox papers. Our specialty lies in making 8x10 portraits of children and babies and the great secret (if we can call it such) of successful child portraiture is—patience and more patience.



"GRANITE DELLS SWIMMING POOL"

By J. N. Miller

Data: No. 1 Eastman View Camera, Graflex focal-plane shutter, Bausch & Lomb Tessar lens, stop used F-32; time, 1/10 second exposure. Premo Film Pack, Pyro and tank development, printed on Glossy Azo F. No. 2.



The Making of a Picture

By Will H. Walker



With an Illustration by the Author

(Note: We hope to publish in the near future, other methods of securing pictorial results. The reader will be interested to learn just what other pictorialists do... It must have struck the careful observer how remarkable it was that certain pictures seemed so satisfactory. It may have appeared that certain people were exceedingly lucky in finding themselves on the spot and ready to photograph at the opportune moment. This precious moment rarely occurs, there is invariably something lacking. If we have cultivated a strong feeling for the pictorial, we will strive to provide that needed something.

There is no royal road to accomplish this end. Different photographers adopt various methods that suggest themselves. The one and perhaps the only thing that counts, is a very clear understanding of just what is needed and then it is up to us to do it our own way.

As Mr. Walker says, his first negative was of the old life boat and a "bald-headed" sky. He was too much of an artist to fool himself that an enlargement of that negative with a soft focus effect would have made his work artistic. The worthwhile is not arrived at with a bluff, there is only one thing if we wish the worthwhile, it is work.

The gull, it seems, gave the photographer some trouble, but it was worth it. It was not put there for the fun of it. The composition needed a "spot" there for balance, and as that spot was small, it was isolated by the breadth of the sky.

There is something in the aims of pictorial photography. To some it would mean bother, to others, a labor of love. When one starts out to make a Salon picture and has it accepted, there comes a satisfaction the average photographer does not know. It is the pleasure of accomplishment and the acknowledgment by others of our merit. To know that we "put it across" means more than the picture because, that knowledge is of value to us.—E. F.)

Combining two or more negatives into one, to obtain a pictorial result, can be accomplished by anyone having a reasonable amount of technical skill and a lot of patience.

Double or triple negative combination can hardly be called double or triple printing, as the print is not obtained until after the combination produces the working negative.

Many years ago, in my raw amateur days, it was my good fortune to obtain a picture of an old style life boat in the breakers on the Washington Coast. This picture had a bald sky and did not at that time please me, so it was filed away. About two years ago I resurrected this negative. The more I looked at it, the more it appealed to me as the foundation for a picture. As it lacked sky, one was obtained from a negative taken several years later on the same beach. There was still needed a gull negative. This was secured in July, 1921, on the Oregon Coast near Cape Perpetua. The above

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THE LIFE BOAT

(San Francisco, 1922)

three negatives had all the component parts of the pictorial if they could be combined into one negative.

My initial step was to enlarge the first two negative films, each on a 5x7 Seed 23 plate, in the Camera, of course photographing against the light. After developing the resultant positives, fixing and washing, I reduced the foreground of the sky positive, also clearing the sky of the life boat positive, using the regular Farmers reducer. When dry these positives were bound together, the horizon line in perfect registration. Sickness and many other interferences prevented my resuming the work until late fall of 1921. I then concluded to add the finishing touch, a flying gull, which would complete my combination from which I hoped to produce a negative which would create a Salon entry. This part of the work was the most difficult. The $3\frac{1}{4} \times 4\frac{1}{4}$ gull film was enlarged to a 4x5 positive on a 23 Seed plate in the Camera. Before doing this, however, the film was backed with a glass plate, blocking out with opaque on back of glass everything but the gull.

After several failures, I found that I could opaque quite away inside of the gull outline and still get a perfectly sharp image of it in the positive, owing to the refraction in glass backing. The size of the gull was reduced in the 4x5 positive as it was to be placed farther out over the sea, in the completed picture. From this 4x5 positive was made a 4x5 negative, this size being used to allow for the necessary shifting in the frame when fixing position of gull on final 5x7 positive. Backing the 4x5 negative with black 5x7 mask, with the 4x5 negative of gull in its proper position, a contact 5x7 positive was made which gave me a flying gull on absolutely clear glass, but in right position. After development and completion, this positive when bound behind the previous positives of life boat and sky produced a perfect

THE MAKING OF A PICTURE

picture of the life boat driving through the breakers into a storm and the gull flying away along the shore. From this triple positive it was easy to obtain the final negative in the camera.

The resulting enlargement from this negative was entered and accepted in the 1922 Pittsburgh Salon.

It might have been possible to have produced this picture by double or triple printing, but after some experience with that method, I believe the combination of positives to produce the final negative the shorter road to successful result. In conclusion let me add that all development was with old and reliable Pyro in tank.



POOL OF ENCHANTMENT—GOLDEN GATE PARK
By H. S. Lawton—Western Pacific Photographer

CAMERA CRAFT



1. Finish of mile. Left to right Kitts (C) Denton (C) Elliott (S) Fiske (C). Elliott came through with one of the gamest finishes of the meet, beating Fiske to the tape. 2. Flint Hanner, Javelin thrower and captain of the Stanford Track team. 3. Boren (C) who won his event with a jump of 23'1". 4. Linsky (S) jumped 22'7" odd, but failed to place. 5. Brick Muller (C) was unable to place in this event but tied for first place in the high jump with his teammate Traer. 6. Low hurdles. Left to right Neff (C) and Falk (S). Falk took first place in both high and low hurdles. 7. High hurdles. Left to right, Henderson (C) Davies (S) Hayes (S) Falk (S) Neff (C). 8. Finish of the 880. Left to right Daly (S) Scoville (S), whose leg is only visible, Bauman (C) whose head is just visible over pierce's (C) shoulder and Mackintosh (S). 9. Finish of the 440. Left to right Williamson (S) Hendrickson (C) Judah (S) behind Hendrickson, and MacDonalds (C). Judah gave the dopsters quite a jolt by finishing ahead of MacDonald.

These pictures were all taken at the Stanford California Track Meet on April 22d. The Meet was one of the most close and exciting contests ever held on the California oval and resulted in a tie, each side having earned 65- $\frac{1}{2}$ points. G. ALLEN YOUNG,



Much in Little

By Carroll B. Neblette



Director, Division of Photography, Pennsylvania State College

Next to lighting the most important fitting in the darkroom is the water supply. While it is possible to get along without running water it adds much to the convenience of working. When the position of the darkroom is being decided this matter should be given careful consideration and the room placed where water may be installed with the least bother and expense. It is seldom difficult to install the water pipes themselves but any trouble met with is more often due to obstacles in putting in the drain line. This must have a gentle but decided slope from the sink to the main while freedom from bends will save later plumbing bills and possible overflow.

Two, or at the most three, taps for cold and one for hot water are all that are needed in the average darkroom. One of these to be used for general purposes as washing trays, diluting developers etc., while one of the other taps is connected to the plate washer and the third to a print washer or one tap may do for both of these and each appliance connected up before use. While the installation of hot water means almost double the expense it is well worth while as it is often needed during the winter months for raising the temperature of developers and other baths while at other times it is needed when making up solutions.

Opinions are divided as to the size and kind of sink that is best. Perhaps the handiest to install is the regular porcelain sink, since it withstands all ordinary chemicals and can be purchased and fitted up very quickly by the plumber whose time means money. Lead sinks are favored by some but the author does not see any particular advantage in the same over other less expensive kinds. In the student laboratories at the college the sinks are made of cypress one and a half inches thick which is carefully fitted and bolted together and finally given three thorough coats of Probus enamel. I believe it is hard to improve on this kind of sink. Since in our case the sinks are each fifteen feet in length such construction was great economy—the complete installation costing about one-fourth that of enamelled sinks. An exceedingly good sink is one made of concrete especially if the latter is coated with one of the concrete finishes such as used for finishing concrete floors and it then becomes almost like marble or porcelain and perfectly resistant while at the same time is easy to keep clean.

While a concrete sink may not especially appeal to amateurs it is popular among professionals and as there may be few who would like to build I will add just a word or so about the construction of concrete sinks. First a

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framework of half or three-quarter inch boards is build upon the supports where the sink is to be placed and in the bottom of this box should be placed about two inches of cement made by mixing sand three parts cement two parts. At this stage the waste pipe should be placed and just a fraction below the surface of the mortar since the concrete will shrink as it dries. When the layer of cement has set the inner framework made of the same kind of lumber may be placed inside the other and secured with small strips of wood so that it will not move while the space between the two is being filled. This inner framework should be about three or four inches shorter than the outside frame so that the side walls are from one and a half to two inches in thickness. After allowing several days for the cement to thoroughly harden the forms may be removed. If the time is not considered such a sink is the most economical and is also one of the best.

Personally I like a false bottom to the sink so that tanks and trays will be above the bottom and the outflow of water undisturbed. Such a bottom is easily made with several wooden strips fixed to cross bars so that they are about one and a half to two inches apart, and the whole coated with probus or shellac. This bottom will save many breakages particularly where there is a concrete or porcelain sink.

On either end of the sink or convenient to the same should be a table for loading and unloading holders and a drawer to this table is oftimes a decided advantage. It may be used to store little articles which are often needed but have the unfortunate propensity of getting into places where they cannot be found when needed and it may also be used to protect the developing tray from light when for any reason the worker is forced to leave the room, for which purposes it of course requires to be practically light tight.

There are a few things more which I would like to say regarding dark-room construction and also some photographs of our installation here which I hope will be of some service to those who propose to build.



CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

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Our Photographic Exhibition

Not long ago a visitor at our office remarked, "I should like to know the difference between a good photograph and a Salon picture?" To give a satisfactory answer is not as simple as some might think. In fact that query might be matched by this question, What is the difference between the flavor of an apple and a pear?

If a good photograph has nothing else to recommend it but technical perfection the chances are, it never would be accepted in any photographic salon. Whereas, we have seen some indifferent photographs received with acclaim. This does not mean that the judges are indifferent to technical excellence, far from it, but it does mean the thought, the idea behind the work is of paramount importance.

This is as it should be, for the beauty of one appeals to the eye alone, the beauty of the other appeals to the mind as well. The one at best boasts of only mechanical excellence and manual dexterity. The other appeals to the spiritual, the esthetic.

There is only one way to really appreciate the difference in this quality; there is only one way to appreciate the difference in flavor; we must become familiar through experience.

At the present time there is an exhibition of photographs at the Fine Arts Palace which will continue open to the public until June 18th. If you are interested in photography you should certainly go there. It is probably the very best exhibit of its kind this city has had. If this sort of thing is new to you, you will look at photographs the like of which you never saw before.

You will realize that there are men and women striving for an ideal in photography. They call it pictorial photography. You may be interested, perhaps you may enjoy yourself greatly; we suggest that you go.

If you are just a novice you will be astonished to learn that some prints take hours to make, some are printed three or more times on the same piece of paper. Why? To meet an ideal. It takes much thought, much time and a great deal of experience to do these things, and it is only those who love the work for its own sake and for their ideals that accomplish things.

There are pictures here made from several negatives combined in one print. It takes skill. Do you think more of the worker or less of him, for being so proficient? Yet, some say this is not legitimate, and the reason—"because it is not."—E. F.

ART AND THE CRAFTS

A Department Devoted to the Encouragement of a Closer Relationship
Between Photography and the Fine Arts.

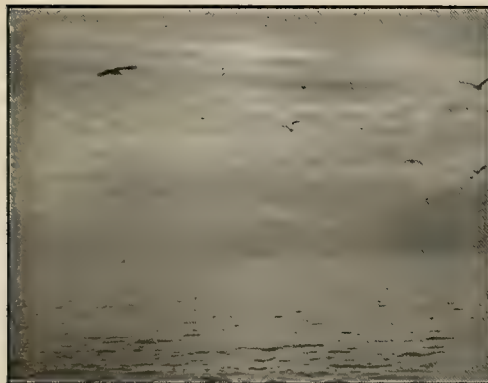
Cloudland

There are fields in which the imagination and execution of the artist have transcended the actualities that Nature offers—there is one province that is her own. No painter has conceived an idealization to expel its realities. No technician has met his requirements. The great mass of workers fail hopelessly to present its salient facts. It is cloudland—the sky with its wonders of color, form and texture, arrest the attention of all. Eyes trained or untrained are drawn to revel in its beauties, and yet how few of those who paint give it serious attention. Who thinks of devoting to it the kind of study that is given to the body in a life class and yet the subtilities are greater not less and the difficulties of presentation still greater. In fact, it would seem as though the majority feel the lack of resource in means, in medium and in artist so keenly, they sidestep the whole problem and content themselves with conventional substitutes that only familiarity and lack of better comparisons make acceptable.

Some of the difficulties in presenting the

sky is inherent and in insuperable. The scale of value is the longest in nature. From the darkest dark of a thunder cloud to the illuminated edge of a wisp of cirrus there extends a tonal gamut that no palette can supply. Secondly, when the sky picture is most entrancing its formal outlines are in a state of constant change and the mutations are too swift for transcription by the most rapid sketching. The bare outlines, yes, but the inner structure and texture in which the ethereal beauty dwells—no. These two circumstances have deterred the majority from attempting those glorious pictures that nature constantly offers. Canvasses in which the sky is the subject are rarely painted—painters capable of painting them are still rarer. Turner's work, especially his later studies, show the possibilities and the difficulties.

Now what is the position of photography in this field. The difficulty of values remain. I am writing in mid Atlantic under a perfectly even covering of stratus cloud, it is all white, but the whiteness of the Eastern half is clearly of higher val-



NORMAL



INVERTED

ART AND THE CRAFTS

CLOUDS IN MID
AND FAR
DISTANCE



ue than the Western, but no plate would register the differences between the two fields, and under most conditions the streams would print alike. Still the photographic plate accurately used with correct screen will give a gamut of tones that the brush cannot produce and under these circumstances it will give what is so enormously important the inner structure of

cloud masses, and it will register those evanescent mountains of light, dark mysterious caverns, and towering castles that give wings to our imagination and make cloudland a country of desire. Such photographs give the artist a chance of indirectly painting from nature instead of from memory, which is otherwise his only resource. I can hear the protest of some-

SUNSET



SHOWING
NORMAL
GRADATION
OF THE SKY



one who is only acquainted with the common type of overscreened cloud photograph that too often gives over accentuated contrast, brilliant white clouds floating in a night sky. Cloud photographs should be printed on blue Ferrotype paper or better still blue carbon tissue. Even with these helps the artist has a difficult task if he paints skies as subject matter and with truth.

I would conclude these notes with some remarks upon the relation of sky tones to the picture plane and ask for the observance of some principles that are too often neglected. There is a natural distribution of light in the sky dependent on the distribution of reflecting matter in the atmosphere. Such matter being the only secondary source of light. As the simplest example, consider the sky plane facing an observer on the sea or a flat land surface. Directly in front of him will be an atmospheric sea to the limits of visibility, some twenty miles. It is dense air, it can therefore support much dust and moisture above one's head is also air, but rapidly thinning and at one tenth of the distance of the horizon, practically free of light-reflecting matter. Between the horizon and Zenith there extends a zone of all intermediate space of graduation so that the art of the firmament is darkest overhead and lightest at the horizon. As a morti-

fying factor we must consider the sun's position which will increase the amount of light in the part of the sky where it shines without altering the general curved character of the dome that gives the impression of the sky coming up and over the beholder. Now the retention of this impression is essential, if a skyscape is to be a success, but both in painting and photograph it is constantly sacrificed. In the photograph this is the result of incorrect exposure and development, or insufficient latitude in plate or paper. In the case of paintings, the fault is with the artist who fails to observe or does not know or think. Much of the so-called modern stuff is particularly defective in correct or pleasing rendering of the sky.

One more point—the receding plane of the sky is just as much devisible into fore, middle and distant sky as the underlying landscape. Aerial perspective plays the same part and the clouds overhead show the same sharp contrast of light and shade, the distance the same approximations of tone and softening of outline that we see in distant objects on the land surface. This is not often appreciated because not sought for, but if we look at a typical cloudy sky turned upsidedown it becomes immediately apparent and all who wish to paint cloudland with truth and beauty must realize its importance.

H. D'Arcy Power.

A PHOTOGRAPHIC DIGEST

Edited by H. D'Arcy Power, M. D.

Color Prints by Copper-Mordant Dye-Toning Process

(Continued from May issue)

It is found that pictures made by toning the silver picture with copper consisting of already coloured silver double salts with copper, may be dyed with organic, basic dyes, the original colour tints being changed in any desired direction.

In particular, copper-toned pictures, which contain copper ferrocyanide as colouring matter, may be dyed strongly in this manner with organic dyes, the peculiar red-brown colour of the copper toning being suppressed by the majority of the applicable dyes, the colour of the latter prevailing exclusively in the picture. In consequence of this abnormal capacity of copper ferrocyanide for being dyed, the silver picture must be kept quite thin and soft if it is to be sufficiently transparent for projection purposes. The dyeing may be complete in about five minutes in dye solutions of 1:1,000. The copper picture necessary for obtaining a powerfully coloured dye picture is so thin that separation of the copper compound is superfluous. At the same time, the definition of the original silver picture remains undiminished, and this basic picture which is dyed by the dye may remain in the finished picture.

The transparency of the coloured copper picture is very high. It may be still increased if the silver ferrocyanide, simultaneously produced in the action of known solutions, is dissolved by means of a weak soda fixing solution; the coloured copper picture is in no way affected thereby. When the silver salt is not separated, pictures of highest transparency and purity of colour may be made by coating the layer with a varnish, for example, a solution of ammar in benzene.

By way of example: After the silver picture has been converted into a copper-toned picture, it is dyed in a solution of methylene blue (1:1,000), advantageously containing some acetic acid, until the back of the plate shows that the picture is dyed through.

For projection pictures this happens on the average in five minutes. For thicker pictures some minutes longer are required. A short washing of the picture follows, to separate the excess of dye-stuff from the gelatine layer.

It may be remarked that the process is very suitable for making pictures in natural colours by the three-colour principle; they are remarkable for their brightness, high definition and transparency.

In a later patent, No. 147,103, of Dr. Traube's the use of the following classes of dyes is claimed in conjunction with the copper-mordant process. Thiobenzoyl, thiazines, pyronines, safranines, oxazines, and acrilines.—British Journal of Photography.

Clouds in Autochromes

It is generally known that one of the weak points of the Autochrome process lies in its rendering of cloud effects, and very in its rendering of cloud effects, very few indeed are the transparencies seen with really good sky renderings. Of course, this is largely caused by the smaller margin of latitude in exposure allowed by the Autochrome plate. Cloud formations, when very distinct, may sometimes be retained if a very exact exposure is given, and if care is taken not to develop the plate too far in the first bath, the requisite density and brilliancy of colour in the transparency being obtained by intensification. This plan, however, is more or less risky. A good way of preserving cloud forms is to paint over the sky por-

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tions of the plate with 10 per cent. potass bromide solution, using a sable brush very lightly charged with the solution. This should be done before the time of development as a whole is half complete. This is not an easy matter in the dim Virida light, though it should be remembered that by the time development has reached the stage mentioned the plate has lost much of its sensitiveness, and no harm will result if quite a bright light is used, provided the plate is not held too near. This method applies only in part to sunset sky effects, when, as a rule, the exposure is made with a view to including the clouds only, the landscape as part of the subject being of little importance, its effect being for the most part suggestive, as a silhouette foreground. Yet this must not be overdone, or an untruthful effect will be produced. Unless the landscape foreground is a very open, distant one, no details of it should be hoped for, since the quality of the sky effect would of necessity be sacrificed. In sunset sky effects, compromise with regard to exposure could be productive of successful truthful, or even convincing, results, and the usual exposure rule should be reversed to suit the case, viz., "Exposure for the high lights, and let the landscape take care of itself."—R. M. F.—British Journal of Photography.

Permanganate Formulae

The majority of photographers do not realize how adaptable permanganate of potash is to the needs of the general worker.

This salt of potassium may be used for a variety of purposes, and it will be found that baths compounded with permanganate will compare favorably with other formulae used for a like purpose, and in some cases excel them.

The object of this article is to collate the formulae for various baths, of which permanganate is the principal agent, and also the processes for which the salt may be used.

Negative Reducer

As a reducer for negatives this salt has proved valuable. Negatives that have been inadvertently allowed to develop a little

too much may be as easily reduced to the required density as the excessively over-developed ones. A strong solution for rapidly reducing the most dense negative is:

Potassium permanagante,	
(5% sol.)	2 drs.
Sulphuric acid (10% sol.)....	5 drs.
Water	10 ozs.

Apply this solution to a dry negative, wash immediately and dry. Again repeat this procedure, and a considerable softening of contrasts is obtained.

On the other hand, fairly even reduction may be obtained by diluting the above reducer to 60 ozs. and applying to a wet negative.

The strong reducer should not be used to reduce a negative with strong high-lights and shadow detail in clear gelatine, as the little deposit in the shadows will be removed, as they would be with any single solution reducer when considerable reduction is desired in the high-lights.

Stain Remover

No matter how careful one may be, occasionally stains make their appearance on our negatives, but with the aid of an acid permanganate solution the fault may be rectified with ease.

Two methods may be adopted, one of which will permit the negative to be intensified during the process of removing the stain. Bleach the negative in either A, B, or C solution of the late Welborne Piper's chromium intensifier according to the degree of intensification required. Wash, away from strong light, until the bichromate stain is removed, place the negative in

Potassium permanganate	
(5% sol.)	2 drs.
Sulphuric acid (10% sol.)....	5 drs.
Water	5 ozs.

from 2 to 10 minutes until the stain is removed. The negative will have taken on a characteristic brown stain which can be easily removed with a 1 in 10 bisulphite lye or a 2 per cent potassium metabisulphite solution.

Pour either of these solutions on and off the negative until the stain is removed, but discard the clearing bath when any discoloration is visible, and use fresh solu-

A PHOTOGRAPHIC DIGEST

tion. Wash the plate for a few minutes and develop with a normal amidol developer to complete the process.

The second method and the more direct for removing pyro stains is the formula published by Ilford, Ltd., in the "B. J.," May 15, 1916, providing no intensification of the negative is required.

Soak the negative for 10 minutes with constant rocking of the dish in

Potassium permanganate.....	50 grs.
Common salt	¼ oz.
Acetic acid (glacial)	1 oz.
Water	20 ozs.

wash briefly and transfer to

Potassium metabisulphite....	1 oz.
Water	20 ozs.

until the bleached image is quite white everywhere to the back of the film.

Re-develop the image in any non-staining developer such as amidol, when a good neutral black deposit with clean shadows is produced.

If the negative has not been dried before the treatment is applied, harden the negative in a solution of

Chrome alum	10 grs.
Water	10 ozs.

as the film is liable to become a little more tender in the process.

Bleacher for Sulphide Toning

Probably the best known formula containing potassium permanganate is the one popularised by Mr. T. H. Grenall for bleaching prints previous to toning by a solution of sodium sulphide. Many words have been written eulogising this bleacher, and with justice. It has the power of clearing up the high-lights and tones a correctly developed print to a pleasing cool brown color quite free from any trace of yellow. The writer prefers the acid bleacher, as it is less trouble to compound than the formula containing sodium chloride, and the remarks in the previous paragraph apply to that formula.

Two stock solutions are required:

A. Hydrochloric acid.....	10%
B. Potassium permanganate..	5%

For use, take A 1oz. and B 30 mins.

This formula is considerably stronger than the one suggested by Mr. Grenall,

but it has been found necessary, to complete the bleaching within a reasonable time.

Both stock solutions keep indefinitely in stoppered bottles, but the working mixture must be made up at the time of using and discarded when it shows any sign of discoloration or turbidity, as trouble may be experienced where the sediment which is formed touches the print.

The prints are transferred direct to the sulphide bath, which should not be stronger than 2 grs. to the ounce, where any brown stain due to the bleaching bath will generally disappear. Should the sulphide bath fail to remove the permanganate stain, a quite effective clearing bath is 1 per cent solution of potassium metabisulphite.

Re-bleaching Sulphide Toned Prints

It sometimes happens that a sulphide toned print is not quite the color desired, particularly so when the exposure of the print, for the reason of excessive contrasts in the negative, has had to be increased and development not carried out to the limit. When it is deemed desirable to improve the color of any sulphide toned print resort may be made to the bleaching bath already given, and it will be found to bleach out nearly as rapidly as a normal print. Apply a weak solution of sulphide (about 1 gr. to 1 oz. water) to the print, and a darker and much improved color will be the result.

Should, however, it be desired to reconvert a sulphide toned print to a black tone, use the same bleacher and re-develop the print in the following acid amidol developer:

Sodium sulphite	¾ oz.
Potassium metabisulphite....	80 grs.
Amidol	30 grs.
Water	20 ozs.

pass through the hypo bath, then wash and dry.

Re-development for Improving Prints

This useful salt may also be used for bleaching a bromide or gaslight print to improve the color and contrast.

It not infrequently happens that an enlargement has to be made from a negative with excessive gradations, and resort is

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made to abnormal exposure and development. The bad color of the print show the method of its production.

Prints of this type can be readily improved and a warm black tone obtained on most bromide papers by the following method:

Bleach the print in

Potassium permanganate,	
5%	120 mins.
Sulphuric acid, 10%.....	40mins.
Sodium chloride	30 grs.
Water	10 ozs.

Wash the print for 10 minutes and re-develop in strong daylight with a normal amidol developer without any addition of bromide. Wash the print again for a short period, and the process is complete.

Slight intensification is obtained by this method, but should this increase in strength be deemed insufficient greater intensification can be obtained by first sulphide-toning the print, washing, re-bleaching and re-developing in the formulae already given in an earlier portion of this article.

Hypo Elimination

The rapid elimination of hypo is occasionally necessary, and no better chemical can be used than permanganate of potash. Rinse the negative for a short time in running water, and meanwhile

make up a solution of permanganate of potash of a pink color. Lay the negative in a dish and pour on a small quantity of the above solution, which must be removed so soon as the pink color is altered. Repeat this procedure with fresh solution until the color of the permanganate solution is not discharged.

Pyro Stained Fingers

Immerse fingers in Ilford bleacher, already mentioned, for a short period of time, and remove permanaganate stain with the metabisulphite solution.

Hypo Test

Permanganate may also be used to test the presence of hypo in negative or prints. For this delicate test make up a solution of potassium permanganate of a light rose color and place a small quantity in two test tubes, or other glass vessels. In one tube allow the drippings from the negative or print to be tested to fall into the solution; if no change of color is apparent when compared with the untoched solution you may be assured that the negative is free from hypo.

The dilute solution for this test should be used soon after mixing owing to the water causing the solution to lose color. —Horace C. Inskeep, in British Journal of Photography.



IN COOLING SHADE

THE AMATEUR AND HIS TROUBLES

Conducted by Edgar Felloes.

More About Dorotypes

In the May issue of this department I spoke about Dorotypes. I wished our readers to know something about a very beautiful process and one that is particularly suited for charming souvenirs. As to the making of a Dorotype, there is nothing beyond the ability of the careful amateur, and I feel sure a desire will possess many to do some of this work if they could see a good specimen of Dorotype.

I was indebted to "Hammer's Little Book," published by the Hammer Dry Plate Co., St. Louis, for the account printed last month. This time, however, I borrow from "Studio Light," a professional's magazine, published by the Eastman Kodak Co., Rochester, New York.

The student will now have all the information needed, and if able to develop a plate cleanly, success is assured after a few trials. The article follows:

There is always a demand for something new and novel in photography, and while the process of making Dorotypes is not a new one, there are apparently many photographers who have never made them.

The requests we have received for the instructions given several years ago for the making of Dorotypes indicate that this style of picture is still in favor.

For the information of those who have never made a Dorotype we will explain that it is a positive image on glass or film and that it receives its brilliancy from the material which is used to back it up.

The backing may be a fine gold bronze, a tinted paper or a light shade of silk or satin, but the material most generally used is gold bronze.

As the Dorotype backing is opaque and its brilliancy must be reflected, a dark material can not be used for backing.

Neither can the positive image be a heavy one. The first requirement is a clear, thin positive from a negative of good quality.

From large negatives these positives should be made by reduction, as the most attractive Dorotypes are small in size.

Use a Commercial Film or a Seed 23 Plate for making the positive, give full exposure and soft development so that the image will be full of detail but quite thin.

If you must work from a flat negative, use a contrast developer. If the negative is contrasty use a soft developer, while if you have a well balanced normal negative, a normal developer will answer. The positive must be thin to give the best result.

When the positive has been developed, fixed and thoroughly washed, it should be re-developed in the re-developing solution recommended for giving sepia tones on Eastman Bromide papers. The formula is as follows:

No. 1 Bleaching Solution

Potassium Ferricyanide	5 ozs.
Potassium Bromide	5 ozs.
Water	120 ozs.

No. 2 Re-developing Solution

Sodium Sulphide	5 ozs.
Water	60 ozs.

Prepare bleaching bath as follows:

Stock Solution No. 1.....	4 ozs.
Water	4 ozs.

Prepare re-developer as follows:

Stock Solution No. 2.....	1 oz.
Water	8 ozs.

The positive is immersed in the Bleaching Solution until only faint traces of the halftones are left and the black of the shadows has disappeared. This will take about one minute.

The positive is then rinsed thoroughly in clean cold water and placed in the Re-developing Solution until the original detail

CAMERA CRAFT

returns, which will require about thirty seconds. Rinse thoroughly and then immerse for five minutes in a hardening bath composed of one ounce of the following hardener to sixteen ounces of water:

Hardener

Sodium Sulphite, E. K. Co.....	1 oz.
No. 8 Acetic Acid (28%).....	3 ozs.
Powdered Alum	1 oz.

The re-developed positive is thoroughly washed and dried and very carefully spotted. It is now ready for backing unless it is to be colored. If colors are to be used they should be transparent colors such as are made from Velox Water Color Stamps. Too little color is preferable to too much and the tints should be very carefully blended. A delicate tint against a light background will be found most pleasing.

If silk is to be used as a backing, only the lightest shades and finest textures will be found suitable. If tinted papers are to be used an enameled or very smooth surface is best.

Lay the positive on the material to see the effect. It is best to make several positives of the same subject in your first experiment so that you can determine by comparison what strength of positive will give the most pleasing result. The standard selected can then be followed in future work.

When silk is used as a background it should be backed up with cardboard, cotton and paper. Cut a piece of cardboard the size of the positive, lay a piece of cotton batting over the cardboard, cover the cotton with a heavy sheet of white paper and place the silk over this. Lay the positive on the silk, being careful not to wrinkle it, and passepartout the positive and backing together. By applying a slight pressure while binding, the cotton will hold the silk in good contact with the positive.

The most common and generally used method of backing is to coat the film side of the positive with gold bronze. It is necessary to use care in selecting the bronze powder as these pictures are often quite small and a coarse grade of powder will give a coarse grain to the picture.

A dark gold bronze gives a dull effect that is not pleasing. Use a very fine, natural gold-color bronze that will give a smooth surface. In most cases your stock house can supply you if you will specify "Light Gold Photo Coating Powder."

This powder must be combined with a liquid that will not affect the silver deposit or the gelatine and that is as nearly colorless as possible. The best thing we have been able to find for liquifying bronze powder is Eastman Lantern Slide Varnish. It is colorless, dries in about thirty minutes and does not affect the silver image or the gelatine.

Use a small amount of the bronze powder and add varnish until the mixture is about the consistency of thin paint. Apply it to the film side of the transparency with a flat camel's hair brush about an inch wide, and allow to dry with the transparency lying perfectly flat. If the bronze shows brush marks when dry it has been applied when too thick. The solution should be thin enough to flow together, should be applied quickly and should not be gone over, once the entire surface has been covered.

With this method the finished picture should also be backed and the edges bound to protect it from moisture. If the positives have been properly handled, the results will be as permanent as the silver image itself.

To give a Dorotype the proper setting it should be placed in one of the leather cases made especially for Doretotypes. The case gives it the necessary tone and enables you to ask a price consistent with the work you have placed on its production.

—Studio Light.

A Copying Suggestion

Many photographs that are copied give evidence of the fact by lack of clear, high lights or a general flatness. This can be obviated by intensifying copy negatives in the chromium intensifier. In some cases the copy by this means is an improvement on the original; and, in any case, the method often removes the need of employing a special plate for the work in hand.—B. J.

FOR THE PROFESSIONAL

In the Interests of Commercial and Portrait Photographers.

The Carbro Printing Process

In a recent pamphlet the Autotype Co., gave particulars of recent modifications in the formulæ for this process, due to an amateur worker, Mr. F. Garon, who has extended the method of Mr. H. F. Farmer, of which full particulars were published in the "British Journal" of October 10, 1919. The advantages of Mr. Garon's formulæ are:—(1) The same time of immersion, 3 minutes in bath No. 1 is required by all Autotype pigment papers, with the exception of red chalk, and (2) the quality of the resulting print is very much under control by simply varying the time of immersion in bath No. 2.

The following stock solutions are required:—

- | | |
|-------------------------------|---------|
| A. Potass bichromate | 1 oz. |
| Potass ferricyanide | 1 oz. |
| Potass bromide | 1 oz. |
| Water | 20 ozs. |
| B. Acetic acid, glacial | 1 oz. |
| Hydrochloric acid, pure | 1 oz. |
| Formaldehyde, 40% solution.. | 22 ozs. |

For use. Normal strength.

Bath No. 1. 6 ozs. stock solution. A.
18 ozs. water.

Bath No. 2. 1.oz. stock solution. B.
23 ozs. water.

The first bath may be used for some considerable time, but the second bath must be frequently renewed, as it is altered by the No. 1 bath transferred to it on each immersion.

First place the bromide print in cold water, then take a piece of pigmented paper cut about half an inch larger than the bromide, and immerse in No. 1 bath for 3 minutes, take out, and holding it by one corner, allow to drip for 15 seconds, then immerse in No. 2 bath for a varying time, from 15 to 30 seconds, according to the result desired.

Withdraw from No. 2 bath and squeegee into contact with the bromide print previously placed on a sheet of glass, place between grease proof paper and allow to remain for 15 minutes.

Towards the end of the time of contact of bromide and pigment paper, take a piece of transfer paper cut slightly larger than the pigment paper, and soak in cold water for 2 or 3 minutes.

Complete wetting is necessary.

After wetting the transfer paper, lay it face upwards on the squeegee board. Now take the pigment paper and bromide, and by raising one corner of the former steadily pull the two apart. Place the pigmented paper face downwards on the transfer paper and squeegee the two into contact. Place between blotting paper with a book over them to prevent curling, and allow to remain twenty minutes to one hour. The bromide print, now bleached, is put into a dish of cold water and washed by frequent changes of water for about twenty minutes.

It is then ready for re-development for further use.

The re-development should be thorough.

The development of a Carbro print is a simple matter, no chemicals being required. The pigment paper on the transfer paper is placed in a dish of warm water. Start with a temperature of about 95 degrees Fah. Keep the two papers, still adhering, well covered by the warm water, and wait until the pigment commences to ooze round the edges. As soon as this occurs, carefully lift one corner of the pigment paper, and, keeping the transfer paper under water, steadily strip the two apart. The transfer paper will now be seen to be covered with a thick coat of pigment.

Gently splash the face of the proof with the warm water, and as the picture begins

FOR THE PROFESSIONAL

to reveal itself, the splashing may be local, if it is desired to reduce any particular portion—should the print be too dark—the temperature of the water may be increased.

When development is complete, the picture is rinsed in cold water and placed in a 3 per cent. solution of alum until the bichromate stain has disappeared; it is then finally rinsed.

Notes and Observations

The time of immersion in No. 1 bath of 3 minutes is applicable to all pigmented papers except red chalk, in which case 5 minutes is desirable. Under-immersion is indicated by heavy shadows lacking detail. The time of immersion in the second bath is a point of importance. Complete control over the brightness of the print is ensured by attention to this detail. Depth and brightness are the result of short immersion, an increase of time giving a proportionate increase in softness of the result.

It is not possible to give the exact best time, but 25 seconds when using a bromide of average depth is a good point of departure. Varying grades of bromide paper demand various times of immersion, but with all grades the rule is constant that longer time gives softness, too long a time gives flatness.

Olive Brown with normal bath is inclined to give weak prints. When using this color it is advisable to make the No. 2 bath of three-quarter strength, i. e., 1 oz. of No. 2 stock solution, 31 ozs. of water.

It is desirable to pass the No. 1 bath through muslin after use. *British Journal of Photography*.

Ferrotyping and Mounting Glossy Prints for Commercial Use

While the ferrotyping of prints is a simple process in itself, there are a number of ways of handling ferrotyped prints and as we have a great many inquiries in regard to the process a review of the subject may be interesting.

Ferrotypes plates should be carefully selected—the heavy plates being most satisfactory because they are less likely to be damaged.

The plates should be cleaned with hot water as often as it is necessary to remove any particles of gelatine or paste which may have remained on them from previous use. They should then be dried with a soft cloth that will not scratch and lubricated with a solution of benzole and paraffin. The solution is made by dissolving 10 grains of paraffin in 1 oz. of benzole. If benzole is not to be had, benzine will answer equally as well.

Wet a tuft of cotton with this solution and go over the plate thoroughly. Then polish with a very soft cloth such as canton flannel. There should be no visible trace of the lubricant remaining on the plate. If there is it will show on the print.

The prints which are to be ferrotyped should be taken directly from the wash water without draining and placed face down on the plates. If they are not to be mounted they can be placed close together, filling the entire plate.

A uniform glossy surface depends upon the prints being in perfect contact with the plates. Air bells can, for the greater part, be eliminated by using care in laying the wet prints on the plates.

Lay a cloth or a blotter over the prints and use a print roller to roll out the surplus water and insure perfect contact. The pressure should be light and the rolling all in one direction. Too much pressure may cause the prints to stick in spots.

If great quantities of prints are to be ferrotyped the plates may be run between the rubber rollers of a power wringer. An ordinary wash wringer will answer but in case the prints buckle the rolls should be reversed so that the handle is on the upper roll.

The prints should be allowed to dry where there is a good circulation of air and if the plates have been properly lubricated the prints will raise when bone dry or may readily be stripped off.

If the prints stick it is because they were not sufficiently hardened in the fixing bath, were washed in water that was too warm, were dried by heat or the plates were not sufficiently lubricated.

Drying by heat is very likely to cause prints to stick because the heat melts the

FOR THE PROFESSIONAL

gelatine. It is possible to use heat, however, provided the heated air is properly conditioned by the addition of moisture.

It is not advisable to dry ferrotyped prints too rapidly as they will not dry evenly and a portion of the print may leave the plate before the rest of the print is dry. Such a print will not lie flat and may have to be ferrotyped a second time.

There is also such a thing as having prints hardened so that they will not take the high gloss of the ferrotype plate. In such a case the prints may be soaked in warm water before they are placed on the plates but care should be used to see that they do not become too soft.

There are several ways of backing or mounting ferrotyped prints, but the one most commonly used is the muslin back. Pieces of muslin are cut the required size, soaked in water and wrung dry. As soon as the prints have been rolled down on the plates they are given a good coat of paste, the muslin is laid on, rubbed down and the print and mount dry together.

If prints are to have a hinge they are so placed on the plate that the margin to be used as a hinge can be pasted to the plate. When thoroughly dry the muslin hinge as well as the backed print will strip from the plate, the hinge having a stiff paste filler with the same glossy surface as the print.

Eastman Photo Paste or a good starch paste will be found best for muslin backing.

Another material commonly used by commercial photographers for backing ferrotyped prints is Gummed Holland Cloth. With this cloth it is only necessary to wet the gummed surface and apply the cloth to the back of the print that has been placed on the ferrotype plate.

One of the advantages of this cloth is the fact that it does not ravel out along the edges of the print as is often the case with the muslin backing.

Another advantage is that glossy prints may be dry mounted to both sides of Holland Cloth that is not gummed. This cloth is used extensively by book binders and may be secured either plain or gummed as desired.

When it is necessary to mount dull surfaced prints on muslin the best method is to stretch the muslin over a wooden frame, paste the prints, mount them on the muslin and allow them to dry, then cut the muslin away from the frame.

If it is desired to have heavy weight ferrotyped prints that will not curl they may be placed on the plates and a piece of backing paper mounted on the back of each print. As the coated side of the backing paper has considerable gloss, the backed print not only has a glossy surface but a glossy back as well.—Studio Light.



ON THE BANKS OF THE NILE

CLUB NEWS AND NOTES

Club Secretaries and others will oblige by
sending us reports for this Department

California Camera Club

In "The View Finder" is published the following of interest: We are pleased to reprint, as it shows one of the advantages of a live Camera Club to any city.

About thirty-two years ago, the California Camera Club, through its Exhibition Committee, inaugurated a system of travel lectures, illustrated by means of lantern slides, seeking to appeal to its photographic and artistic members, as well as to the friends of the club.

Two months after its incorporation, a public illustrated lecture was given, on June 27, 1890, at the Odd Fellows Hall. A travelogue "Through Japan with a Camera," was presented by Dr. Edward H. Williams of the Photo Society of Philadelphia and of the Pacific Coast Amateur Photographic Association.

From this time they were a regular monthly feature until the time set for the 191st lecture—which happened to be April 20, 1906—on which night neither hall nor lecturer was available. Dr. Lundy, the scheduled speaker, himself explained in February of this year, of his inability to return to the city of ashes and ruins. Upon completion of the Christian Science Church at Sacramento and Scott streets, arrangements were made for use of the auditorium and the lectures resumed in October, 1906. For the six months during which there were no lectures, no dues were charged to subscribing members.

The first lectures were so successful and the demand for the admission tickets, which were issued without cost to our guests, was so great, that the club continued giving these lectures and entertaining friends up to the present time. The lecture for May will be the 378th one, which means that we have given them

without interruption (with the exception of six months in 1906) and with an average attendance of 100 people a month. Figure the total for yourself.

The average cost of these lectures is very close to \$1000 a year, giving you a chance to figure again how much this club has spent to entertain its friends in these 32 years.

It is the first organization I know of to give illustrated lectures free to its members and the only one that has continued to do so.

Stereopticon slides, autochromes, moving pictures and color films all have their turns in the calendar. Last year many lectures given to C. C. C. audiences were repeated at Paul Elder's, Scottish Rite Auditorium, etc., at a charge of from seventy-five cents to two dollars a single ticket, which is proof of the type of talks presented. Nationally known speakers who are C. C. C. "regulars" on their local tours include: Frederick I. Monsen, F. R. G. S. Herbert H. Gleason; Prof. Blaumgardt; Charles Wellington Furlong.

Members will receive a number of lecture tickets as one of their membership privileges. Subscribing membership (six dollars a year) is the equivalent to a subscription to a high grade lecture course—in addition to entitling the holder to other social features.—F. H. M.

Chicago Camera Club

The May issue of "The Exposure" tells us how the members of this Club had made the Pittsburgh Salon of this year memorable by a larger representation of C. C. C. exhibitors than at any previous time in its history.

The Pittsburg Salon, as we all know, sets a pace in pictorial photography and it

CLUB NEWS AND NOTES

a source of real gratification to those collecting Salon honors, to have their pictures included in that annual exhibition. Perhaps there is no other Salon in this country that stands higher in merit than the Pittsburgh Salon.

There is a very noticeable improvement in the quality of club work generally and we may safely credit this progress to the help of Photographic Salons.

Newark Camera Club

At the Thirty-fourth Annual Election, April 10th, 1922, the following were chosen to keep the treadmill going for the next twelve months, with the assistance of the other 135 members.

President—J. Raymond Boyle.

Vice-President—Charles A. Knopp.

Treasurer—Henry C. Brewster.

Secretary—Edwin Wick.

From "The Ground-Glass," this club's bulletin, we reprint the following to satisfy, in a measure, the amateur's insatiable appetite for formulas:

Four Minute Pyro

Water	7 ounces
Pyro	16 grains
Sulphite of Soda (Des.) ..	80 grains
Carbonate of Soda (Des.) ..	40 grains

This developer, when used on a normally exposed plate, will produce a fine blue-black negative, free from all stain, in exactly four minutes.

Mix when ready to use.

Try the following:

Hot-weather Fixing-bath

Water	10 ounces
Hypo (plain)	2 ounces
Salamoniac	1 ounce

Plates will clear in about two minutes.

Hardening-bath

Water	10 ounces
Powdered Alum	1 ounce

The emulsion will decide to stay on the glass or film in about three minutes. Wash the plate ten minutes and wipe with wet cotton under tap and put up to dry.

Southern California Camera Club

"The Accelerator" (Anhydrous) The Bulletin, by the Southern California Camera Club, is up in the ring and smiling. It has just landed its first punch, for we

note the present copy is Vol. 1, May 1, No. 1. We admire the title, it is breezy and we hope the editors will pay particular attention to the meaning of that word, anhydrous, when collecting material for each new issue.

This Club aims to place a contribution box for ideas, for the benefit of "The Accelerator." We also note that members are invited to "air that grouch" or pass the joke along. A fine idea. Perhaps there will be a time when these Club bulletins will develop a healthy but a friendly spirit of rivalry as to which one can produce the snappiest and most readable publication. It always pays to get people interested, and Camera Craft will gladly help by stealing the best, impartially from all. We offer our congratulations to this newcomer and we feel there must be hidden real talent that prompted so happy a selection of title.

Toronto Salon, 1922

This exhibition, international in character, will be under the direction of the Toronto Camera Club and will be known as its Thirty-first Annual Salon.

The co-operation of pictorial workers throughout the world is solicited, so that the Salon may serve its purpose of advancing the cause of Pictorial Photography.

Conditions

All prints submitted must be entirely the work of the exhibitor, mounted but not framed, preferably on white or light toned mounts 16, 20, or 24 inches in height.

Each print must show on the back, number, title, name of artist and return address to agree with entry form.

Not more than eight prints may be entered by one exhibitor and only prints showing distinct artistic effort accepted.

Prints must be packed flat, adequately protected, charges prepaid to reach destination not later than July 29, 1922.

Address all communications and packages to J. H. Mackay, Secretary Salon Committee, the Toronto Camera Club, 2 Gould Street, Toronto, Canada.

We have copies of rules and entry blanks which we shall be pleased to supply our readers on application.

CAMERA CRAFT

A Coming Exhibition

Frederick & Nelson, Seattle, Washington, make the announcement that their third annual exhibition of pictorial photography will be held this year from November 8th to 18th, inclusive.

In the absence of a regularly organized camera club in Seattle, Frederick & Nelson have acted as pioneers in bringing to that city the representative work of many of the best-known American pictorialists. The auditorium of the Frederick & Nelson store is admirably fitted for the holding of such an exhibition, and care has been taken, in the first two annual shows, to provide facilities thoroughly in keeping with the best salon traditions. A substantial prize list is provided, with a capital prize of one hundred dollars. Amateurs and professionals compete in these exhibitions on an equal basis. For two years, the capital prize has gone to entrants from the Atlantic seaboard, and California entrants, also, have captured a good share of the awards. Last year, more than 1,400 entries were received, and 400 prints were hung. Detailed prospectus of the regulations and awards is now ready and may be secured upon application to Frederick & Nelson, Seattle, Washington.

Camera Club of Cincinnati

From April 15th to 30th, 1922, an exhibition of the photographic works of Nickolas Muray, of New York, was held at the club rooms, Fourth and Sycamore Streets, Cincinnati. Mr. Muray's work is known to pictorialists all over the country through the medium of the photographic press. His pictures are sought for and reproduced by their various editors on account of their artistic merit.

We are pleased to inform local amateurs and professionals that there will be presented at the Palace of Fine Arts in the forthcoming exhibition of The Pictorial Photographic Society of San Francisco, several original prints from the negatives of this talented artist. This exhibition will be opened to the public from May 19th

to June 18th, during which time it is hoped that devotees of the camera will avail themselves of the opportunity to view the best in pictorial photography.

Camera Pictorialists of Los Angeles

The close of the fifth annual Salon of Photography, finds the Camera Pictorialists of Los Angeles already laying plans for next year's exhibition.

An active campaign to reach every pictorialist known in exhibition circles is in process of development to the end that, with no small measure of confidence, the organization expects participation next year's salon from every corner where pictorial photography is practiced.

At the annual election of officers W. A. Hudson succeeded the former director and founder of the organization, Louis Fleckenstein, and Mr. N. P. Moody was re-elected to the office of secretary.

By the way of placing the election of associate members upon a more highly competitive basis, a committee was appointed to formulate plans for such elections, the chairman of which is Mr. C. Marvin.

The Society desires to exhibit only the best of the world's work in pictorial photography, it is determined that associate membership shall depend upon the sharp discrimination in judgment of individual eligibility thereby prospective members are assured that their election shall indeed be an honor.

In recognition of the highly meritorious nature of their work and their participation in previous salons of the Camera Pictorialists of Los Angeles, the following were elected to associate membership:

John Paul Edwards, Sacramento, California; Wm. A. Alcock, New York City; Laura Gilpin, Colorado Springs, Colorado; H. Y. Summons, Virginia Water, England; C. E. Wakefield, Sydney, Australia.

The Camera Pictorialists of Los Angeles, W. A. Hudson, director and N. P. Moody, secretary.—James N. Doolittle.

INTERNATIONAL PHOTOGRAPHIC ASSOCIATION

Officers of the I. P. A.

I. B. Hinman, President, Evergreen, Jefferson City, Colo.
Miss R. Murray, Chief Album Director, 927 Ford Ordensburg, N. Y.
A. E. Davies, General Secretary, 1327 Grove St., Berkeley, Calif.
 There is no officer in your State, address the General Secretary.
 Answers to inquiries concerning membership and membership blanks will be supplied by the State Secretaries. Album directors are at present acting State Secretaries in such of their respective States as have as yet no Secretaries.
John Bieseman, Director Post Card Albums, Leek, Ohio.
Eric Meredith, Director Steroscopic Division, Hometown, Tenn.
A. E. Davies, Director Lantern Slide Division, Grove St., Berkeley, Calif.

CLASS I

Regular members or those desiring a general exchange. Such members may limit their exchange to a certain class or kind of work desired. Specify their exchange notice. Class I members are asked to answer promptly all letters in which a reply is inclosed for reply.

CLASS II

Members who, from lack of time or uncertainty of address, might find it inconvenient always to reply promptly to inquiries concerning exchange. Class II members will receive few, if any unsolicited exchanges, as they are expected to acknowledge such correspondence as they may themselves receive.

CLASS III

Members desiring to enjoy only the benefits of the circulating Albums. All members, regardless of the class to which they belong, in order to receive the Albums, must send prints to the Director of their class or the General Circulating Albums for insertion therein. In no case are Class III members to be asked to exchange.

The word Class as used in this connection has no reference to the grade of work turned out by a member.

NEW MEMBERS

A. R. Groenink, Box 431, Prescott, Arizona, Class 2.
Elmer D. Boots, 127 W. Fuente St., Covina, Cal.
 4x5 1/4 and 5x7 and enlargements to 8x10 Cyko, 6x, Wellington Bromide of seascapes and mountain views for the same or any good landscape scene.
 Was 1.
A. W. E. Dunlap, P. O. Box 1106, San Francisco, Cal.
 4x5 1/4 or smaller glossy of figure studies, draped, undraped, genre and dancing girl poses for the same. Class 1.
Elmer L. James, 7 Brookline St., Cambridge, Mass.
 4x5 1/4, 4x5 and 5x7 Velox and Cyko, glossy finish, of New Haven R. R. engines, Boston & many engines, Boston and Maine engines, all 3 and scenes in 4x5 1/4 and 5x7 over R. R. scenes in 4x5 prints, scenery in color two distinctly above mentioned sizes desired. Class 1.

5180—**E. Shirley Gumm**, 641 Central Ave., Lexington, Ky.
 4x5 1/4 and enlargements up to 8x10 Cyko and P. M. C. Bromide of views of Central Kentucky scenes, also genre and miscellaneous for anything of general interest. Class 1.
 5181—**Geo. W. Orm**, Lock Box 444, Egg Harbor City, N. J.
 4x5 1/4, 4x5 and 5x7 Ace of landscape and genre for landscapes, marines, etc. Class 1.
 5182—**Harmer B. Cornelius**, 431 So. Ashtland Blvd., Chicago, Ill.
 4x5 1/4 and 5x7 glossy finish of Yellowstone Park, Yosemite Park and subjects of general interest throughout the Western States for historical or any interesting subjects within the U. S. Class 1.
 5184—**Fred C. Gorman**, 1623 Jackson St., Saginaw, Mich.
 Class 2.
 5185—**Karl J. Houck**, 134 Masten St., Buffalo, N. Y.
 4x5 1/4 and 5x7 Velox or Cyko of views of nearby towns, cities and of our own city for anything of general interest. Class 1.
 5186—**Geo. W. Orm**, Lock Box 444, Egg Harbor City, N. J.
 4x5 1/4 and 5x7 Ace of landscape and genre for landscapes, marines, etc. Class 1.

RENEWALS

2095—**G. G. Storz**, 1424 Germantown Ave., Philadelphia, Pa.
 4x5 1/4 Ace of historical and landscapes for anything of general interest. Class 1.
 3320—**George R. Bunn**, 1446 Michigan Ave., Los Angeles, Cal.
 Class 2.
 4142—**James F. Gifford**, Letter Carrier No. 142, Benson Station, Omaha, Nebr.
 Class 3.
 5049—**Geo. Wellington**, P. O. Box 1126, Bridgeport, Conn.
 4x5 1/4 of landscapes and marines for the same or anything of general interest. Class 1.

CHANGE OF ADDRESS

1213—**A. E. Davis**, 1609 Beaudere Ave., Detroit, Mich.
 Was P. O. Box 107, Algonac, Mich.
 1077—**Wm. G. Brenner**, General Delivery, Fort Wayne, Ind.
 Was 501 W. Marion St., South Bend, Ind.
 5281—**B. W. Lemley**, 1807 Elmwood Ave., Buffalo, N. Y.
 Was 14011 So. Home Ave., Chicago, Ill.
 1678—**C. H. Leese**, Ashburn, Nebraska.
 Was Duquesne City, Nebraska.
 4225—**S. C. Eddy**, 501 51st St., Oakland, Cal.
 Was 415 Commerce Bldg., Los Angeles, Cal.
 4788—**Leola F. Hill**, Black Mountain, Cal.
 Was Greenbrae, Cal.
 5178—**Arthur E. Hadley**, 1250 Madison Ave., New York, N. Y.
 Was 1391 4th Ave., Astoria Park, N. J.

NOTICE

1046—**Harold Jones**, 1845 W. Vineyard St., Philadelphia, Pa. Has moved and is no longer at this address.

NOTES AND COMMENT

A Department Devoted to the Interests of our Advertisers and Friends
In it will be found much that is new and of Interest

While the notices under this heading are strictly in the nature of information and news for the benefit of the reader, and are neither paid for nor actuated by our advertisers, we are compelled by the Postal Laws to mark them as follows:—Advertisement.

Reported by Wm. Wolff

L. M. Powell Studio, Hanford, again visited by fire, May 10th. Blaze started in cafe below, destroying entire building.

C. L. Parko of Fresno is keeping pretty busy these days.

Ernest Forsmark and wife report big increase in Kodak finishing business in Turlock.

Frank B. Robinson, Merced, looking for big tourist business in Yosemite Valley this season.

Tom Shool still at Turlock, High school work is over.

Rembrandt Studio, Stockton, is turning out some fine work since W. Bicknell has taken over the studio. His charming wife assists him.

Roy Schneider of Logan Studio, Stockton, Cal., is to be married May 25th. (Good luck, Hiram.)

Nathan Reiman, Stockton, has leased half of his store for stationery, etc. The place looks fine and would do credit to any city.

Writer sending these notes from Fresno—some hot today, May 13th.

100 Advertisements for Photographers

We need not devote space in explaining why photographers should advertise. The importance of advertising is now so generally recognized that the question is, in what form it should be placed to secure public attention. This is a business now, people specialize on the get-up of advertising copy. The average man realizes it pays him better to have his "ad copy" prepared for him by an expert, than to attempt it himself.

To meet the needs of a host of photographers, that well-known house, The Abel Publishing Co., 421 Caxton Building, Cleveland, Ohio, has brought out the third of their series, entitled "One Hundred Advertisements for Photographers." The reader should be informed that series one and two are now sold out, hence this later issue. It must not be understood that series three is a reprint; it is an entirely new issue, all the advertisements in this book are new and original, they have not been used before, nor will they be used again. The introductory to this work has something to say on advertising and we quote from one of the paragraphs the following:

"Let us impress on those who use this book of advertising that it is absolutely useless to attempt newspaper advertising or any kind of advertising unless it is intended to keep up a regular and systematic campaign."



Wollensak New Lens

To the commercial photographer especially, a wide angle lens is a necessary part of his equipment. It should, therefore, interest him to know that the Wollensak Co. have recently introduced an Extreme Wide Angle working at f-12.5, the price is right and the manufacturer's

NOTES AND COMMENTS

name will stand as a guarantee as to quality.

This lens is an entirely new addition to the Wollensak line, the Series IIIa shows promise of rivaling, in popularity, wide angle lenses of much greater cost. With its speed, extreme angle, reserve covering power and moderate price, this lens offers a combination of qualities that should prove of especial interest to every commercial photographer.

On the plate for which it is listed, the Series IIIa includes an angle of view of 90 degrees. Because of its large circle of light, it can be made to cover a plate a size larger, thus affording an angle of approximately 100 degrees. Of course, when used on a larger plate, it is necessary to employ smaller diaphragm apertures.

The Series IIIa gives excellent definition wide open, and must be stopped down but very little to give wiry definition to the very corners of the plate.

These lenses are supplied in barrel or with the Betax shutter.—Advertisement.

The Pacific Permanent Exposition of Allied Arts & Industries

Los Angeles, California, on June 1st, 1922, there will be opened to the public "The Exposition Beautiful" a unique exhibition, publicity and trade service for manufacturers, publishers, importers and jobbers.

"The Exposition Beautiful" will be one of the show places of the city, free to the public every day in the year except Sundays and holidays.

The Exposition will be liberally advertised in newspapers and mediums giving information for tourists, also by means of posters, car-cards and other publicity, including its own weekly "Bulletin."

The varied attractions of the Exposition will be further enhanced by frequent special exhibitions of the work of leading artists, photographers, photographic societies, etc. Weekly demonstrations, or illustrated lectures on various branches of photographic work, and subjects pertaining to the fine arts, graphic and decorative

arts and all such special events will be announced in advance by means of bulletins in the stores, invitations by mail, newspaper advertising, etc.

The "Exposition Bulletin" will be a weekly house-organ for free circulation among the Pacific Coast jobbing and retail trade in the lines covered by the Exposition, and will carry a complete list of the exhibitors with description of lines displayed, notices of new samples and new lines received, personal items of interest to the trade, announcements of coming events such as lectures, demonstrations and special exhibitions, etc.

As a result of the publicity work, under expert direction, the Exposition will be visited by thousands of people each day, including residents of Los Angeles and vicinity, visitors from all parts of the United States and Canada and from Spanish America and the Orient.

The project undertaken by Mr. Potter will be conducted on plans similar to the Bush Terminal Building's Permanent Industrial Expositions in New York, and may eventually occupy a similar position in the metropolis of the west coast in the development of business for eastern and local industries.

The Permanent Industrial Exposition idea is of comparatively recent growth, and is recognized as a vital factor in modern industrial development. The city of Los Angeles is one of the logical and strategic locations for such an Exposition.

The group of Arts and Industries which will form the first unit of the Pacific Permanent Exposition, includes the Photographic, Optical, Graphic Arts and Decorative Arts, all of which are inter-related either in having channels of distribution in common, or being tied up together in the retail trade.

The older readers of photographic literature will recall Mr. Potter as the editor and publisher of *Western Camera Notes*, a magazine which he conducted for ten years, and which was merged with *Camera Craft* in 1910.

CAMERA CRAFT



THE SUCCESSFUL PICTURE

The winner of the first Meteor Flash Powder Prize Competition for Amateurs was Archie Towart, Jr., 35 Campbell Avenue, Caldwell, N. J. An engraving of this picture appears herewith.

Interested amateurs should read the Meteor Flash Powder advertisement on another page with regard to future contests.—Advertisement.

The "Sept"

If you ever saw a Sept negative and a 25 times enlargement made from it, the chances are that you would want to possess the camera that does this wonderful thing.

What is the Sept?

It is a camera that makes "movies" and "stills." It carries eighteen feet of standard width film in its little inside, and you can make that length of moving picture, or if you prefer, it is as easy to take 250 separate pictures, size $\frac{3}{4} \times 1$ inch, and time exposures may also be made, and snap shots as well.

The Sept is really a wonderful thing. It is all made of metal. It will last a lifetime. The size of the Sept is only $4 \times 5 \times 6\frac{1}{2}$

inches and it weighs less than four pounds. It is operated by means of clock-work mechanism, there is no cranking to do, a button is pressed and the clock gets in motion, while the camera is held in the hand.

As to the lens. It is an anastigmat of course, working at F-3.5 and two inches focal length. The Sept has a focusing scale and an object can be focused sharply as close as twelve inches. When the lens is set at universal focus its depth of focus is remarkable and the negatives are microscopically sharp. An automatic indicator shows the number of pictures taken. The camera may be loaded and unloaded in daylight by means of light proof metal film magazines.

NOTES AND COMMENTS

The Sept makes an ideal equipment for scientists, naturalists, explorers, news reporters, architects, aviators, and amateurs and professional photographers.

We have not yet told you all the Sept will do, if you are interested in the last word in photographic cameras from Paris, France, write to the distributors, Herbert & Huesgen Co., 18 East 42d Street, New York City.—Advertisement.

An Improved Korona Folding Studio Stand

It is a source of great satisfaction to the Gundlach-Manhattan Optical Company to present to photographers the Improved Korona Folding Studio Stand. It is really a combination studio stand and tripod and is equally suitable for indoor and outdoor photography. While the original Korona Folding Studio Stand was admirably suited for indoor work, the new stand has many features that will be appreciated by the photographer whose work carries him out-of-doors, where often times he is obliged to work on rough or uneven ground, and where a tripod would not be suitable by reason of its lack of stability.

The Improved Korona Folding Studio Stand is safe, strong and rigid. It is quickly set up or taken down, and is convenient to carry even with a camera attached. Of the tripod type — the three legs open simultaneously and a simple locking device holds them securely in place. Each leg is fitted with a steel pointed, adjustable, extension for leveling when the stand is used on rough or uneven ground. For level surfaces the extensions may be drawn up and fastened and the bottoms of the legs present a smooth surface that will not mar the most highly finished floor. It is very handsome in appearance, being attractively finished in walnut and lends an air of distinction and beauty to the studio, besides being a very practical piece of equipment. Photographers who specialize in home portraiture will find the Improved Korona Folding Studio Stand a very valuable addition to their outfit, principally because of its portability and the ease with which it can be set up or taken down.—Advertisement.

Scheibe

There is a man in Los Angeles who has made it his business to supply the "camera man" with certain optical specialties of real value to the moving picture industry. With his inventions, Geo. H. Scheibe secures most realistic effects, saving time and saving money.

Photographic pictorialists are now growing interested, perhaps they reason, if certain effects are so good on the screen why not in their pictures? We believe it is only a question of time when Scheibe's methods will be adopted by many camera enthusiasts, his ideas have much to recommend them. For example: Some photographic workers have devoted considerable time to the development of night photography, it takes much skill and long exposure to secure satisfactory results. It is an item of interest, however, to know a similar effect may be secured with a certain screen and a suitable diaphragm in the sunlight, the results are pronounced superior, the picture is more certain and the worker has much time to the good.

Pictures made of scenes during a mist or fog are sometimes very beautiful. Why wait for these conditions when such pictures are desired? We have seen such pictures made in the sunlight, and through them we have glimpsed a fairy-land bathed in a morning mist. An effect of fog is as easily secured, indeed one would ask, why wait? We simply have recourse to a screen and presto, we secure what we want, just as much or as little as we need.

There are many filters made by Scheibe for many purposes, and the photographic illustrator will realize this man has made available ingenious ways of banishing uncertainty. The pictorialist who desires to enter the field of book illustrating can do so with a greater assurance of commercial success than formerly, he simply makes his conditions and does not wait on the pleasure of nature. His work can be delivered on time, he can be counted on.

The Focusing Filter is interesting and valuable.

Geo. H. Scheibe, 1636 Lemoyne St., Los Angeles, Cal., will be pleased to help read-

CAMERA CRAFT

ers in the selection of screens, his announcement on another page of this magazine has long been familiar to subscribers of Camera Craft.—Advertisement.

United States Civil-Service Examination Photo Negative Cutter

Receipt of Applications to Close
June 20, 1922

The United States Civil Service Commission announces an open competitive examination for photo negative cutter. A vacancy in the Hydrographic Office, Navy Department, Washington, D. C., at \$1,000 a year, and vacancies in positions requiring similar qualifications, at this or higher or lower salaries, will be filled from this examination, unless it is found to the interest of the service to fill any vacancy by reinstatement, transfer, or promotion.

Training and Experience—Applicants must show in their applications that they have had at least three years' experience as negative cutter in a photographic shop. It is desirable that applicants should have had experience in map work.

Age—Applicants must have reached their twentieth but not their sixty-fifth birthday on the date of the examination. In view of the retirement act, should the appointing officer so request, certification will not be made of eligibles who have reached their fiftieth birthday.

Applications—Applicants should at once apply for Form 1800, and form for county officer's certificate, stating the title of the examination desired, to the Civil Service Commission, Washington, D. C.; the Secretary of the United States Civil Service Board, Customhouse, Boston, Mass., New York, N. Y., New Orleans, La., Honolulu, Hawaii; Post Office, Philadelphia, Pa., Atlanta, Ga., Cincinnati, Ohio, Chicago, Ill., St. Paul, Minn., Seattle, Wash., San Francisco, Calif., Denver, Colo.; Old Customhouse, St. Louis, Mo.; Administration Building, Balboa Heights, Canal Zone; or to the Chairman of the Porto Rican Civil Service Commission, San Juan, P. R.

The exact title of the examination, as given at the head of this announcement, should be stated in the application form.

Statement of the ownership, management, circulation, etc., required by the Act of Congress of August 24, 1912, for April 1, 1922, of "Camera Craft," published monthly at San Francisco, State of California, County of San Francisco.

Before me, a Notary Public in and for the State and county aforesaid, personally appeared I. M. Reed, who having been duly sworn according to law, deposes and says that she is the Business Manager of the "Camera Craft" and that the following is to the best of her knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in Section 443, Postal Laws and Regulations, printed on the reverse of this form, to-wit:

Publisher, Camera Craft Publishing Company, San Francisco, California; Editors are Dr. H. D'Arcy Power and Edgar Felloes, both of San Francisco, California; Business Manager, I. M. Reed, San Francisco, California. That the owners are Camera Craft Publishing Company, San Francisco, California; Harriette E. Clute, Trustee, Mountain View, California; Romaine F. Clute and Clifford H. Clute, Beneficiaries, Mountain View, California.

That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent

or more of total amount of bonds, mortgages, or other securities are none.

That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company, but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest, direct or indirect, in the said stock, bonds, or other securities than as so stated by him.

(Signed) I. M. REED, Business Manager.

Sworn and subscribed before me this twenty-ninth day of March, 1922.

SID J. PALMER, Notary Public,
in and for the City and County of San Francisco,
State of California. My commission expires December thirty-first, 1922.

CAMERA CRAFT



SAN FRANCISCO
CALIFORNIA

Look What's Coming!

Early Issues Will Contain:

Two articles by Mr. G. K. Hays on historic buildings—very interesting.

Mr. Howard Webster of Webster Bros., Chicago, promises an account of his talk at Kansas City on Coloring Photographs.

Mr. Keedy of Keedy Studio, Chicago, promises a sketch of his talk at Kansas City on Illustrative Commercial Art.

Child Portraiture by Mr. O. C. Conkling of St. Louis, Mo.

Portrait Talks by Mr. Will H. Towles of Washington, D. C.

The last four articles were talks and demonstrations given at the Fortieth Annual International Convention of the Photographers' Association of America, held at Kansas City, Mo. They were enthusiastically received by the highly critical professional photographers present.

*Not to speak of an unusual number of especially
interesting articles for the amateur*

Camera Craft Publishing Co.

Claus Spreckels Bldg., San Francisco, Cal.



CAMERA CRAFT

A Photographic Monthly

Entered at the Postoffice in San Francisco as Second-Class Matter. Copyrighted, 1922, by Camera Craft Publishing Co.

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Camera Craft Publishing Company, Claus Spreckels Building,
San Francisco, California.

FOREIGN AGENTS

Australia	Harringtons, Ltd., Sydney
England	Kodak Australasia, Ltd., Sydney
Malta	Francis Collas, 3 Wine Office Court, Fleet Street, London, E. C.
New Zealand	Do Agius Catania, 41, Sda. Reale, Valletta
Philippine Islands	Richard Hill, Matlock House, Devonport, Auckland
Japan	Waterworths Limited, 58 Queen St., Auckland
China	Waterworth's Limited, 286 Lambton Quay, Wellington
Scotland	F. O. Roberts, Manila
	K. Kimbel, Yokohama
	Squires, Bingham & Co., Shanghai
	Robert Ballantine, 103½ St. Vincent St., Glasgow



3 1/2-in. Kodak Roll Film Tanks at HALF PRICE

1922 Catalogue Price \$5.50 **\$2.75**
OUR PRICE.....

500 Brand New Eastman Kodak Roll Film Tanks just purchased through U. S. Army Sales. While they last, \$2.75 each. Only one to each customer. Weight, 7 lbs. Please include postage.

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PANAMA CANAL

one dozen

PHOTOGRAPHIC } POST CARDS } ONE-DOLLAR-ONE
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Get rid of what you do not want for something you need.

LENSES

I buy, sell and exchange lenses and all other

Good Photographic and Moving Picture Apparatus

Let me quote you prices on ANYTHING wanted before closing your deal elsewhere—IT WILL PAY YOU!! MANY REAL and GENUINE BARGAINS constantly on hand and coming. Certain apparatus sold on the Installment Plan. Repairing also done. State your needs

Catalogues on Application

RALPH J. GOLSEN "The Lens Man"

1128 Argyle Street Chicago



AIR BRUSH

FOR

Art Work

We're doing business at the old stand making and selling more than ever of the BEST ART TOOL in the line for good work. Send for circulars today and learn of its many uses.

AIR BRUSH MFG. COMPANY

102 W. State Street

Rockford, Ill., U. S. A.

MERIDE

INTENSIFIER

(METEOR)

Will give greater intensification than any other on the market

ELIMINATION OF HYPO, BLEACHING, OR REDEVELOPING IS UNNECESSARY

Simply rinse the fixed negative several seconds, and immerse in the solution. Ten seconds is often sufficient. Then wash thoroughly same as after fixing.

At dealers \$.20, by post \$.28

DEPT. A

JOHN G. MARSHALL

1752 Atlantic Ave.

Brooklyn, N. Y.

How to Obtain Dramatic Effect

Watch the progress of stagecraft as acquire the peculiar ability to reproduce the true dramatic effect. Most of the leading photographers read THE DRAMA Five months' trial subscription, \$1.

THE DRAMA, Athenaeum Bldg., Chicago

The Norton Baby Holder, especially designed for photographing children, can be used on table, chair or floor. It is especially designed for those who wish to take Kodak pictures of their children.

PRICE, \$6.50 POSTPAID

THE FOWLER & SLATER CO

CLEVELAND, OHIO



"Be it ever so humble (!)
There's no place like home!"
—By Manning Brothers

CAMERA

CRAFT



A PHOTOGRAPHIC MONTHLY

H. D'ARCY POWER, M. D.
Editor-in-Chief

EDGAR FELLOES,
Associate Editor

CLAUS SPRECKELS BLDG.

SAN FRANCISCO

CALIFORNIA

VOL. XXIX

JULY, 1922

No. 7

The Photographers' Association of America 40th Annual International Convention Kansas City, Mo.

By Edgar Felloes



With Frontispiece and Illustrations of
Prize Winning Pictures

We have given considerable attention of late to the doings of the "Photo Pictorialists." It is now our purpose to speak of that branch of the photographic art that for a distinction, may be termed the "Commercial." It is the more important of the two and is the foundation upon which photography as a necessity exists.

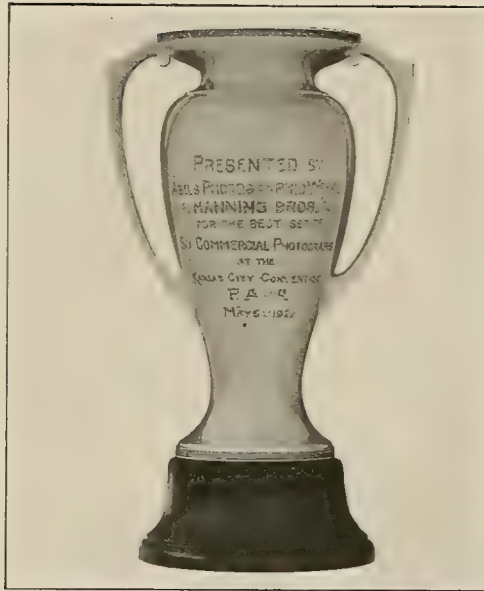
We are able in this issue to begin the publication of our promised account of doings at the convention we recently attended. And, though the work we discuss is entirely the product of professionals, yet the account should prove interesting to many amateurs as it is largely from the ranks of the amateurs the profession is recruited.

On our arrival in Kansas City, we saw more photographers than we had ever seen before assembled in one spot, they looked prosperous too, they seemed happy and the friendliest set of men and women that anyone

CAMERA CRAFT

"could shake a stick at." Why the stick? We do not know, but please let it go as a form of expression.

Joining a party of new found friends, we followed the crowd, and we studied it. Here were real photographers, they could produce the goods. They could live by their work. They looked like everyday business men. They were business men.



THE ABEL SILVER CUP
For the Best Collection of Six Prints

The slouch hat was not there. The long hair was not there and neither the dandruff speckled collar. The artist photographer in the movies was not there either, he might have been killed if he was. There was no posing. These men and women were photographers, all sane, out for a good time and to learn something.

Many of this party were headed for the Auditorium, we followed and entered a large building that had before this sheltered many a convention.

The main hall was devoted to what in the catalogue was called the Market Place, here the various manufacturers and dealers exhibited their wares. The hall itself was tastefully decorated with many flags and innumerable lanterns, while the spacings for booths were divided with bamboo and oriental mattings, with wistaria blossoms pendent from the trellises. This took us back in memory to a certain Japanese tea garden tucked away in our Golden Gate Park. The decoration was pretty. We felt at home.

There were many exhibitors. All the leading manufacturers in the photographic trade were assembled here. Every kind of camera the professional had use for was here, bidding for favor in proud mahogany and brass.

I. THE PHOTOGRAPHERS' ASSOCIATION OF AMERICA



ONE OF THE SET OF SIX PRIZE PICTURES

There were lenses too, all kinds, and print washers innumerable. There were lights for picture making, embracing every idea, from a broad illumination to the insistent spot light and we must not forget the flash cabinets. Daylight, you will be assured is a back-number which each dealer has undertaken to prove.

In the most conspicuous location in the hall, and occupying the largest floor space, stood the exhibit of the Eastman Kodak Co. It was an elaborate affair and could be best described by the single word—classy. Here was displayed in suitable frames a wonderful set of negatives on portrait films and accompanying each negative was a positive of it, made on commercial film. All these were shown in transparency and any “pictorialist” with prejudices would be obliged to admit, that commercial photographic art also had beauties of its own, and the perfection of its product could not be

CAMERA CRAFT

ignored by a careless shrug of the shoulders. Arranged along sloping tables at convenient height were volumes for photographic display and here were shown exquisite prints in papers of various coatings and textures from negatives of wonderful perfection.

A set of prints we carefully studied from negatives by Pirie Mac Donald, New York City, "Photographer of Men" and printed on "Old Master" paper we shall not soon forget—they were wonderful. A section of this booth was devoted to apparatus and they made a most aristocratic showing.

Near here was the booth of the Hammer Dry Plate Co., St. Louis, Mo. It was naturally on a smaller scale, but in quality it was of an equally high class. The Hammer Co., also showed by transparency several negatives and positives all made on glass, they were very fine and only prove the glass plate has still its advocates. There were some beautiful Opals and Doro-types included in the exhibit.

The Cramer and the Central dry plate companies, both St. Louis firms, each made a showing and many visitors were attracted to their respective booths.

The optical trade was represented by Bausch & Lomb Optical Co., Rochester, N. Y., G. P. Goerz American Optical Co., New York City, Graf Optical Co., South Bend, Ind., Ilex Optical Co., Rochester N. Y. and the Wollensak Optical Co., also of Rochester. All these firms showed their products and we believe the average photographer will still be put to it deciding which make of lens should be his choice.

Of printing papers, there was a splendid exhibit made by the Haloid Company, Rochester, N. Y. They showed prints on their various brands of papers demonstrating the varied results to be secured by adopting different surfaces. Pictures were displayed on "Haloid Portraya," "Old Ivory," "Fine Fabric Linen" and "Art Canvas." This was a very artistic display.

The Barston Company, Cincinnati, O., also cater to the photographer. Their specialties are "Art Parchmyn" which is supplied for both contact printing and enlarging. As the name implies, this is a parchment paper, very suitable for high class portraiture. Their "Art Canvas" is just the thing many painters have wanted. It is a real canvas sensitized, and photographs are printed upon it, thus eliminating the drawing, and the painter has the most difficult part of his work done for him by his camera.

Edward Blum, Chicago shows many prints, his "Verrotype" and the "Astro-Print" are well worth looking into.

The Brieloff Manufacturing Co., New York, make a very attractive exhibit with their Midget Lamp, Universal Studio Lamp, Portable Skylite, Universal Section Skylite and the Reflectorlite. They also handled the Prosch Products.

We can not begin to catalogue the names of the many exhibitors nor detail their varied displays. There was one particular exhibit, however,

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ONE OF THE SET OF SIX PRIZE PICTURES

that always had a crowd before it. This doubtless was owing to the human element which always exerts a strong influence. We refer to Beattie's Hollywood Hi-Lite Co.'s demonstrations, the most popular in the hall. Mr. Beattie, to show the undoubted merit of his invention had wisely secured the services of an attractive young lady as model. She was quite "au fait," as the French would have it, or, "she was all there," as we should say. As a crowd getter this lady was a great success, and Beattie had always an audience and talked to an admiring crowd. We do not hesitate to say that all visitors, especially the male portion were really interested, and they went away with a very good understanding of the merits of the Beattie Hi-Lite.

Speaking of lights, The Butler-Sanker Co. exhibited one of great merit. This light, coupled with the Beattie Hi-Lite were used in conjunction in the portrait demonstrations conducted on the stage of the Century Theatre, of which we hope to speak in another article.

To the right of the main entrance, in a wing at the side of the market place was hung the picture exhibited. The location was unfortunate, and many works suffered by indifferent lighting. Two rooms were set apart

CAMERA CRAFT

here for the use of the Commercial section proper. This branch was organized two years before, and was the outcome of a growing tendency to specialization. The professional photographers are known today as portraitists and commercial men. The latter now form a distinct class of workers. They are specialists, and the growing demand on their skill is such that specialization is necessary to meet the modern requirements of illustrative photography. In the two rooms just mentioned were placed photographs by these commercial workers. The pictures consisted of examples of architecture, furniture, wearing apparel, cut glass, jewelry and a host of other things for catalogue cuts and other advertising purposes.

This exhibition is wonderfully interesting, the work might be called high class examples of pure photography. Here technical excellence is regarded as of supreme importance, and the visitor can not help but admire the craftsmanship and knowledge necessary to produce such examples of work.

For the past twelve months, Howard Webster of the firm of Webster Brothers of Chicago, has been chairman of this branch of the P. A. of A., and the commercial men are to be congratulated on having selected a hard worker, a tactful gentleman and withall a good "scrapper" for a worthy cause. Though we had known Howard Webster by repute as being "a really fine fellow" we were unable to appreciate his real worth until good fortune had brought us together. We then realized that what his friends had said of him was perfectly true.

It is our intention in another issue to speak of the Webster process of coloring photographs. We have alluded to it briefly before, but since that time Camera Craft has so increased its number of subscribers that we have asked Mr. Webster to give us particulars of improvements that we may publish his process down to date, for the benefit of all our readers.

There were two prizes to be awarded to the exhibitors in the commercial section this year. One was a handsome silver cup, presented by Juan C. Abel, editor Abel's Photographic Weekly, to go to the best exhibit of six pictures. The other, \$250.00 cash prize, was awarded for the best photograph advertising "Uneeda Biscuit," this was donated by the National Biscuit Co., and lead to a spirited contest. There were also blue ribbons to be distributed to other meritorious works.

The jury of selection consisted of the following gentlemen: C. H. Ruffner, Editor Studio Light, Eastman Kodak Co.; George W. Curtiss, Gravure Editor, Kansas City Journal; Edgar Felloes, Associate Editor, Camera Craft.

After viewing the many exhibits the jury decided to award the silver cup to Manning Brothers, Commercial Photographers, Detroit, Mich. It was the opinion of the jury that this set of six pictures were sufficiently varied, had pictorial interest and conformed to the requirements of high technical excellence. We here publish engravings of these successful photographs and our amateur readers will realize there is a demand for clear cut pictures of high quality.

I. THE PHOTOGRAPHERS' ASSOCIATION OF AMERICA



ONE OF THE SET OF SIX PRIZE PICTURES

The \$250.00 cash prize donated by the National Biscuit Co., went to (or shall we say was earned by) Thomas O'Connor of Chicago. We think we are correct in saying this prize was earned, for there were many competitors in this class and picking the winner needed careful work.

For the benefit of the student, we append a criticism of this particular picture at the end of this article. We believe it has a place there, and our object in doing so is, to dispel an erroneous idea that prizes or awards fall to the lot of those that are lucky, or that judging is the result of caprice.

There were fourteen blue ribbons awarded in all. This would strike the reader as quite excessive, but if he understood how commercial photography was subdivided into different branches he would appreciate the reason for this seeming indiscriminate giving. For example, one man may have a very fine exhibit of silverware or cut glass or fabrics or a set of illustrative pictures of processes in certain lines of manufacture. Another specializes on machinery, another's principal attraction may be architecture. It would indeed be a difficult thing out of all these classes to bestow a single prize or even three awards, would it not?

CAMERA CRAFT

These ribbons then, were awarded to the following who submitted among them examples of the most meritorious work along these varied lines.



ONE OF THE SET OF SIX PRIZE PICTURES
Notice the Careful Detail Work

Lothers & Young, San Francisco, Cal.
George A. Worthington, Detroit, Mich.
L. R. Jones, Gloucester, Mass.
Fishbaugh & Lee, Atlanta, Ga.
H. S. Bartlett, of John Ollier & Co., Chicago, Ill.
H. Hesse, Louisville, Ky.
Brown & Rehbaum, Milwaukee, Wis.
A. Breitwish, Milwaukee, Wis.
Keedy Studio, Chicago, Ill.
Peyser & Patzing, New York, N. Y.
Weinmuller & Miller, New York, N. Y.
Kauffman & Fabry, Chicago, Ill.
Webster Bros., Chicago, Ill.
Byron, New York, N. Y.

I. THE PHOTOGRAPHERS' ASSOCIATION OF AMERICA



THE WINNER OF THE \$250.00 CASH PRIZE
Donated by National Biscuit Company

THE "UNEEDA BISCUIT" PICTURE, A CRITICISM

Criticism does not necessarily mean fault finding. Where merit is recognized speak of it, thus we accomplish a useful purpose and a pleasanter task.

The merit of this advertising composition is its simplicity. It is the silent salesman, it has a message. It delivers that message in the most direct way possible and does so by the universal language—a picture. A picture of this sort will more quickly appeal to the casual glance than one burdened with unessentials.

We would impress this fact on the novice's mind, that art is as essential in trade requirements as in more ambitious undertakings. That this is not more clearly understood is attributable to a very common misunderstanding as to the real meaning of the word art. To a great many, art means the nude and the nude means art. To others, the word art means the grotesque, the involved, the uncanny. Our understanding of it is simpler, and we value it in proportion to its usefulness, its adaptability to our every day needs. Then it becomes a part of our lives, is understood and is more appreciated. Art comes in and confusion ceases. Art is the antithesis of confusion. An

armful of flowers is cast upon the table, they are beautiful but that is all. Let these be sorted, arranged and brought together so the combinations of color will show to the best advantage, will give the greatest pleasure, that is the result of art. The confusion has ceased, order and emphasis has taken its place and the most striking results are simplicity and beauty.

We note the photographer has done the following things to advertise the biscuit. He has placed some in the most prominent part of the picture and well to the front, where they may be seen clearly. He has thrown his strongest light upon them for the sake of emphasis and also to accentuate the name of the brand "Uneeda." This is important. Then we see, beside the biscuits lies the carton, the object of course is to show the container so as to further familiarize the prospective buyer with the product. But note this. This carton is not as evenly lighted as the biscuits, its shadow side forms a good background to the biscuits themselves, isolates them and adds emphasis. This is art, for two climaxes must not exist at the same time or there is sure to be confusion. There must be a sacrifice and in this case it is the carton, but here we point an improvement.

The light on the top of the carton is a little too bright, it needs a slight toning down, this would detach the biscuits still more. In proof of this, cover this light patch momentarily and the biscuits advance, then uncover, and we immediately see them retire. Had the carton not displayed a bold dark side separating these two light patches there would have been confusion, but as it is the modification suggested would be an improvement, because this part of the picture belongs to a secondary plane.

In the very nature of things this composition suggests the horizontal. The biscuits lie flat, the carton must likewise rest on its side to have the contents easily read. We need, we must have something to lift the eye to the upper portion of the picture, to add dignity to the composition, hence the glass. This complies with an unwritten law, that perpendicular lines have more dignity than horizontal lines. For the same reason, tall people have a stronger suggestion of dignity than short people. And please notice further, the carton instead of being placed square with, or parallel to, the edge of the picture is placed at an angle. This arrangement leads the eye back and upwards, also it suggests a sense of space. The glass of milk is admirably placed, it serves a most valuable purpose. Not only does it suggest its fitness with biscuits, but it is useful to an entirely different end. It, as a perpendicular, stops the lines of the carton from carrying the eyes of the spectator out of the picture, to the right. And speaking pictorially, this patch of white does not dominate that other patch of white, the biscuits, because it is not permitted to be so brilliant and it is set well to one side, near the edge of the picture, in a less important position.

The reader will notice the influence of art in the building up of this composition; does it not from the first make the craftsman's meaning clearer, and does it not avoid confusion?



ONE OF THE SET OF SIX PRIZE PICTURES

It will be noticed the whole subject is displayed on a dark background. This gives emphasis to the whole. But do not overlook the fact that in that background to the left, the photographer has introduced a lighter tone and note its direction. This tone is to repeat the value of that white patch, the glass of milk, in a minor key, it adds interest to the far end of the picture by giving variety and balance, and its downward direction encourages the eye to travel back to the starting point—the biscuits.

This is art, it is not all accident. Some are so constituted that art is largely a matter of instinct, and some must acquire it through study (other competitive pictures in this exhibition amply prove this) but no matter what nature has done or has not done, we can all improve ourselves by this study and thereby gain confidence in ourselves.

The point we wish to make thoroughly clear is this: Art does not mean the fuzzy, the involved, the indistinct or doubtful; on the contrary, it should mean the well controlled effort to aid a more perfect understanding. And with this end, to give satisfaction and pleasure in lieu of uncertainty.

(Report II. will appear next month.)

Days of '49, Sacramento

By E. F.



With Illustrations by McCurry and Others

It is a decidedly novel experience to leave a city in the morning and in three hours to arrive at another city whose inhabitants have jumped seventy-three years back—willfully. The effect is startling.

Sacramento, the city beautiful, whose streets are lined with magnificent trees, a place of charming homes and prosperous people, had invited the world and his wife to come and celebrate with them the days of '49, those days of gold. A part of the world had accepted this invitation, all who could were there and Sacramento was filled to overflowing.

We made a part of the delegation from San Francisco and we enjoyed every minute of our two days' stay. The hotels were all filled, but by applying to the efficient Chamber of Commerce we secured very comfortable quarters in a private home, owned by charming people, a delightful experience. Many home dwellers had listed a spare room for this purpose, or the crowd never could have been provided for.



—Photo by McCurry.

AN INTERESTING SPOT

Marshall's Cabin exhibit at the Mining Town. Erected by the Kiwanis Club of Sacramento and filled with a collection of Marshall relics and curios.

DAYS OF '49, SACRAMENTO



— Photo by McCurry.

CROWNING THE WHISKER KING

The one great attraction at the Celebration was the Whisker King, with a beard seventeen feet long. He is Hans Lanstreth. Alongside him is Zach Wilcox, with only twelve feet of beard.

X Is Clyde L. Seavy, Chief Whiskerino.

XX Is Judge Graham of San Francisco, Whiskerino Emeritus.

The question of temporary home having been settled, we plunged into the spirit of the holiday. It was carnival time and every Sacramentan was out to make it as pleasant for the visitor as he could.

"The dress proclaims the man," it has been said, but we wish it understood this remark by no means applied to Sacramento at the time of our visit. We were strangers, you must remember, and had cause at times to enquire our direction. We approached a man that was rough enough to be the villian in any opera-bouffe. He was dressed as though he cared for nothing. His wide brimmed hat was a very old one, it looked genuine, and a red bandana huddled his throat, then came his whiskers—they looked like copper wire. We pitied his wife, if he had one she surely had fled him; "Oh Archie, how could you?"

Well, Archie looked well fed and comfortable but decidedly of the '49 vintage. When we received the information sought, we were momentarily rooted to the spot, his voice was so pleasantly modulated in the best United States that we felt very guilty, and trusted this gentleman was no mind reader.



—Photo by McCurry.

THE SAN FRANCISCO EXHIBIT

At the last moment San Francisco realized that a mission building was not appropriate for a '49 celebration, so switched over to a mining type. Inside they ran a series of Eugene Castle's films of San Francisco's Chinatown and vicinity. It was crowded most of the time.

The ladies on the other hand looked charming in their quaint poke-bonnets, natty shawls, crinolined gowns and strapped slippers. And the young misses had just hopped from some old picture book with balloon-like frocks and fringed pantelettes. There was nothing theatrical in all this, that was the best of it. All had become used to their costumes and wore them quite naturally.

We sought the mining town known as the "diggins," we too were curious. This had been erected within the bounds of the city and it was interesting to note how we had entered another world as soon as we passed the enclosure. We have managed to beg and steal some pictures, besides taking some shots ourselves, for we thought that someone somewhere might wish to keep them as souvenirs of the most unusual and best advertised show on earth.

As to advertising, you may judge for yourself. If every male in your home town grew whiskers and dressed as your grandfather did, would you notice it, would you speak of it? Well, Sacramento was the first to do this and we are delighted to present to you the portraits of the two men who were guilty, very guilty of completely upsetting the placid lives of a peace-loving community.

To A. S. Dudley, Secretary of the Sacramento Chamber of Commerce, belongs the bright idea, "The Days of '49," and we are glad to add, he received the whole-hearted support of his fellow citizens. Then, as a lady

DAYS OF '49, SACRAMENTO



—Photo by Hartsook.

A. S. DUDLEY

Secretary-Manager, Sacramento Chamber of Commerce. To him we owe the bright idea for the celebration of the days of '49 which proved an unqualified success.

informed us, he did a whole lot of crazy stunts with an aeroplane. The writer was assured "Uncle Dudley" had no business to take such chances, he was caught in a snow storm, he might have died! There is no denying that, but Dudley's excuse was he was in a hurry to visit certain places and an aeroplane could go some.

Then Henry C. Peterson of the California State Library, not to be outdone, furnished the idea of the Days of '49 Whisker Club. Everybody joined that club, and we can assure you some of the men were a sight to behold. One enthusiastic member realizing his wife was away visiting friends, seized the opportunity to let 'er grow (his whiskers) and when the good wife returned he fled to the mountains for a holiday, and when he returned, his wife was plumb scared, but his pals fell all over him in sheer admiration and all declared he had a fine "cootie garage." It was at this moment that Peterson had his picture snapped as he welcomed the return



—Photo by McCurry.

STREET SCENE IN MINING TOWN

On right is '49 Museum, filled with Forty-Nine relics. To the left is the immense wooden hay-baler used here in early times. Every part of it was made in California from wood. It is absolutely unique. Its owner has just presented it to the State of California. It will be erected in the enclosure at Sutter's Fort.

of the prodigal with unbounded admiration. We must tell you reader this runaway from home later secured a medal from his admiring friends. And the honored man confided to his pals, "if you want to grow whiskers, go up into the woods and the wilds and they'll come.

The "whiskerino" idea was undoubtedly an inspiration, but an inspiration does not get very far without the help of printers' ink.

Mr. Irvin Engler, Director of Publicity, was just the man to handle this proposition. He was the one who developed the "whiskerino" publicity, and was responsible for more than a half million dollars' worth of that publicity which probably gave Sacramento a greater amount of newspaper space than has been received by any community in the United States for any individual event.

There was always something doing during this carnival week, business seemed a secondary thing, except with the restaurants and they appeared to have a wonderful trade. On our first evening was given the Bret Hart dinner, it was as enjoyable as it was unconventional; there was a crowd of fully three hundred invited guests of the city. The meal was followed by sketches and readings from this author. At the end of this entertainment, and on the same night, was held The Governor's Ball, society's event for the

DAYS OF '49, SACRAMENTO



MRS. MARY BAUER ENDRISS

In her "Forty-nine" wedding dress. She was for many years next door neighbor to James W. Marshall, the discoverer of gold in California. She is now a resident of Sacramento and took a very active part in the Celebration.

week. And nine o'clock the next morning was the big '49 parade. This was unusual in itself and lasted three hours.

Another thing that made an impression. Wherever we rode on the street cars we noted this piece of decoration, we refer to the motorman, he acted as conductor also. True to custom he was unshaven, and his uniform was of his own choosing. The individual was picturesque, of course, and his badge was a six-shooter strapped to his hip. Everyone paid the nickel promptly.

There was Sutter Fort to be visited. Then the Rodeo to follow. But we left the last out. The nearest park bench was more to our liking and we were really thankful for it. Here we met a man, foreign born, he had lived in Sacramento eighteen years. He too was resting, having taken part in the parade. This man was quite anxious to know what we thought of his town. We told him, and he was just as pleased as though he owned the whole city—"I am glad," he said, "I am very glad." We thought this was a splendid sentiment.



HARRY C. PETERSON

It was he who suggested the Days of '49 Whisker Club in Sacramento.

Henry C. Peterson is Field Research worker for the historical department of the California State Library.

During the past year he has covered the entire Mother Lode country four times. The first trip, of nearly five months was afoot, the second, with a Ford motor truck; the third, with a 22-49 Buick and the last land-marking pilgrimage in a Packard. This Scout believes his next trip will be an aerial one.



Much in Little

By Carroll B. Neblette



Director, Division of Photography, Pennsylvania State College

Too many amateurs make the mistake of purchasing trays that are too small. Perhaps for all ordinary work 6 x 8 or 8 x 10 trays are to be recommended. Practically the only time small trays the size of the plate are needed is in intensification and reduction and for all ordinary work such as developing prints and negatives a larger tray is much more convenient. After long experience with nearly all kinds of trays I believe the choice lies between those made of enamelled steel and hard rubber. The former chips easily and the latter is easily broken and often warps, so that there is little to choose between them. However with the enamelled tray any small chipped place in the enamel may be coated with probus and will then be as good as new.

Now that so many workers use tanks a word or two on the choice and more particularly the care of tanks will not be amiss. For amateurs the only choice practically is the steel enamelled tank which may be closed and development carried on in daylight but the professional has an additional choice in one of the open tanks carrying plates or cut films in hangers. Of

MUCH IN LITTLE.



Photo by McCurry.

THE OLD MICHIGAN BAR STORE

This is a reproduction of the old John W. Heath Store at Michigan Bar. The entire interior fittings, including the stock of goods as it was a generation ago, were brought down and installed. This was one of the most popular exhibits at the Mining Town. It is to be moved to the State Fair Grounds and preserved as a permanent attraction.

Miss Bessie Heath, a member of the staff of the historical department of the State Library is the surviving daughter of the former owner.

In the store were all kinds of old time merchandise, dry goods, shoes, drugs and trinkets.

the former no one make combines all the desirable features. The two representative tanks are the Eastman and the Ingento. The worker who has a darkroom will select the former on account of the ingeneous loading device while the worker using improvised darkrooms will select the latter because it may be loaded in the changing bag and the developer poured in thru the light proof inlet in full daylight and water and hypo may be inserted in the same manner without any further recourse to the darkroom. Care should be taken to keep the tank clean and it should be washed out each time after use in a solution of potassium bichromate and sulphuric acid, the exact proportions are not essential about one half ounce of each to a pint of water. Either distilled or boiled water is preferable for making up the developer but if unobtainable water from the tap should at least be given time to allow the escape of all air, or the negative may be marred by



—Photo by McCurry.

THE CALAVERAS COUNTY EXHIBIT

The real gem of the Mining Town. It won the first prize, a check for \$500, and there was not a dissenting vote. It was a perfect reproduction of a miner's cabin, with weather boards and shakes.

Inside was a typical bunk and furnishings, and proved a most effective weapon in convincing the street carnival promoters that what the public wanted was real '49 exhibits, not kewpie doll concessions. This fact became very obvious when it is learned that practically every street fair concession was a financial failure.

a plentiful crop of pinholes. The tank should be reversed every five minutes in order to keep the developer in motion and avoid uneven density. It is better not to use the tank for fixing but if this is done wash well before use again.

In my opinion the most suitable tank for the professional is the earthen ware tank made by the General Cermatic Co. and sold by Wiloughby, New York Camera Exch., Folower & Slater and several other dealers. Hard rubber tanks have not been satisfactory in my hands soon warping and becoming one-sided. Likewise steel enamelled tanks have soon "gone bad," owing to the developer eating thru the enamel at the corners. While the Earthenware tank mentioned may seem large, it accomodates 24 plates in hangers, it is very convenient for the professional to have a tank large enough to take at least two dozen plates at a time and since the developer will keep for a week or two, if made up according to the Eastman formula, the expense is not so great as might appear.

For all ordinary measuring the tumbler graduates are sufficiently accurate and are much cheaper. A small minim graduate may be purchased of the conical engraved type.

MUCH IN LITTLE



Upper—The parade was led by a host of cowboys. This was an unusually fine exhibition of horse-flesh also.

Lower—There were many ox-teams in the line of march and they added to the picturesqueness of the scene.

A darkroom clock is a useful accessory. The Hanovia radiolite, and the Eastman may be mentioned.

A cupboard in which all stock solutions, plates awaiting development, etc., may be kept is a convenient piece of furniture and will help to keep things in order.

For printing one of the cheap machines is to be preferred to a frame. If the reader is handy with tools he may make his own and save this expense. Designs will be found in most any magazine in some of the back numbers.

Next month I will have a few notes on the bathroom as a darkroom and on chemicals and makings solutions.



A Prairie Schooner



Wells Fargo's Mail Coach
Governor Stephens of California to left of Driver



Halo

By L. C. Bishop



A halo is one of the things you have always expected to get when you become an angel. You counted upon its being handed out to you along with a perfectly new pair of soft, fluffy wings. But if you are working a soft-focus lens you are getting your halo right here on earth.

Big and little manufacturers have rushed the market with new soft-focus lenses, or improved old ones, during the past year. In their hurry they have recognized principally the necessity of diffusion, color corrections, increased speed, reduced weight and the elimination of halo, but they could not know how their new lenses or improvements would behave under the varied conditions in which photographers work.

Everything has been taken care of to quite an extent, except the halo. Its total elimination has been claimed for some of the newer lenses, but this is an oversight for there can be no soft-focus image without the blending of the lights into the darks. Such claims are due to the fact that the clearly defined double outline along white objects against dark backgrounds, as given by some lenses, is not noticeable. But a close examination will prove that the halo has not been eliminated, but has been greatly blended over an area of four or five times that given by the lens which shows a defined narrow double outline.

Freedom from halo trouble is the first thought when the parts ordi-

HALO

narily showing it are seen to be free from double outlines. The difficulty with white parts in strong light seems to be remedied. But—"there is always a fly in the ointment"—the eyes, "the windows of the soul," are dimmed. Here is what happens. The wonderfully effective blending off quality, which takes care of white collars and dresses, blends the white of the eyeball into the iris, leaving the eye lifeless. This is due to the natural dark rim of the iris being blended out and generally weakened.

Most certainly the new lenses are preferable to the old ones, but the photographer must decide which type of the new ones is best suited to his requirements. Of the new lenses one type gives a narrow double outline in contrasty lightings, but renders the eyes natural. In soft, well balanced light the halo is practically invisible. The other type, which blends the outlines, needs no attention given to white collars and dresses, regardless of the contrasty lighting, but kills the expression of the eyes. So one must decide whether he will etch off a very narrow, distinct halo from outside parts when contrasty lightings occur, or risk working on the delicate iris.

With these attending troubles it might seem that other methods of securing soft-focus would be more practical, but our more experienced, master-photographers prove to us that a special soft-focus lens produces the salable qualities which cannot be obtained in any other way. If there were any other way you may be sure they would use it. The high prices their work brings compensate for any extra work, like etching out halos.

I recently witnessed a trial of these two types of lenses, the model and lighting being the same in each case. The one lens gave a distinct halo along a part of one side of the face. The other lens at first sight showed no halo, and I was very much surprised because the lighting had been of that contrasty type which is most likely to show it. When the proofs were shown to the model she immediately chose the one with the halo. Upon being questioned, she answered—"In the other one my eyes look weepy!" This was the first time my attention had been drawn to this fact, as I had been looking for soft-focus troubles in the customary places. Both plates were, later, very successfully etched and finished, but the model chose the one she had first preferred, still thinking that the eyes were unnatural in the other, possibly because she had first seen them when in their bleary state.

Since either a distinct or a blended halo has to be contended with in the majority of our soft-focus negatives, we should give our attention to finding a simple way of dealing with it. In my personal experience I have found that by keeping the plate thoroughly wetted with turpentine over the parts I am etching there is less danger of cutting too far into the film. This should be done, of course, before doping the plate for retouching.

No soft-focus lens will ever be perfect, no more so than other things, and "nothing is perfect." Curing one ill often causes another, or makes the same trouble show in a new form at some other point. Sacrificing one thing to gain another is usually necessary. However, any of the good new soft-focus lenses will be found to be an improvement over the old.

I.—Wild Life Photography

By Stanley Clisby Arthur



Former State Ornithologist, Louisiana

Throughout the world there seems to be an awakening to the value and right of our native wild birds and animals to stay on this sphere. This in spite of the fact that hunting and killing were important attributes of the primal man. In this country, especially, there has been a particular lure in the chase of our citizens of the air and the shy denizens of the forests and plains. This appeal of the chase has been one of our main characteristics from the time the Pilgrim Fathers landed on the rocky Massachusetts coast until that golden day when the continent was peopled from coast to coast.

The chase has always been with a firearm of some description, from the bell-mouthed blunderbuss of Miles Standish to the hi-power automatic of 1922, and the bag usually contained some dead creature of the wilds for the larder. This hunting instinct handed down to us has been a glorious heritage and we Americans have made the best of it. It has taught us self-reliance, an ability to shoot and a certain knowledge of the wilds.

But today there is no absolute necessity for the killers to go to the



A CLOSE-UP OF CABOT TERNS

Made with a 15-inch Rapid Rectilinear lens, F-8 on 4x5 plate
Note chick following mother-bird who is enticing it away from "blind."

WILD LIFE PHOTOGRAPHY

marshes, the uplands and the grassy plains to enjoy the excitement of the chase. To shoot to eat has become a memory of the past. A newer, a more humane, sport is taking its place and that is the sport of wild life photography.



ROYAL TERNS AND YOUNG

Exposure 1-1500 second, long focus Reflex, Ross 15-inch Rapid Rectilinear lens.

I carry but one axiom with me to the woods and that is by Dr. William T. Hornaday, who said, "Any fool with a gun can kill a bird—it takes brains and skill to photograph one."

Wherefore, I am a rabid advocate of this latter-day recreation. There is a peculiar and fascinating charm attached to the portrayal of animals and birds via photography. To enjoy it to the utmost I have laid away my arsenal of "shooting irons" in gun grease in favor of an assortment of cameras, a collection of lenses and a miscellaneous accumulation of accessories, all of prime importance to picturing the birds of the air and the beasts of the field.

This very important branch of photography has progressed amazingly during the past ten years and today the pages of many of our foremost periodicals are embellished with wild life portraits, for fidelity to the living, breathing creatures they portray, are infinitely superior to the renditions by pencil and brush by our best artists specializing in this branch of Art.

The photography of wild life has accomplished wonders in awakening a broader and more intelligent interest in natural history and the end is not yet as new members continue to join the fraternity of wild life photographers. To make this universal I am presently organizing an international association of wild life photographers for the purpose of an exchange of prints, ideas and experiences. It costs but a postage stamp to become initiated.

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Camera adventures in this newer realm of sport will furnish you a thrilling pursuit, the end of which awards trophies no Winchester ever could win; hunts that will call for neither limited game bags nor hunting license, and an open season that knows no close. And your friends and you will find



CABOT TERNS IN FLIGHT

Example of speed work with 15-inch Rapid Rectilinear on long focus Reflex,
1-1000 second exposure, F-8 on Hammer Red Label Plate

more enjoyment in the pictures you will bag than could possibly be found in a collection of heads and horns, a taxidermic mallard, or a rug that once was the shimmering coat of some creature of the woods that deserved something more from man than death.

The animal kingdom is a wonderful source of inspiration. Since the red dawn of history man has lived his life with the birds and the mammals, in the beginning his was a struggle for existence in a hostile environment and the animals were his worst enemies. He feared them but learned to conquer and subdue them, and finally to domesticate them and make them his pleasure and his supply of food. He tamed the jungle fowl, the dog became his hunting companion, the horse carried him swiftly in pursuit of his game or enemy and became his main burden bearer. The time has come for man to view Nature's children from another coigne than that of mere killer.

Wild life photography runs the gamut of birds, mammals, fish, flowers and insects. Each division will require more or less special treatment and different kinds of apparatus. The heretofore great difficulty in nature photography has been overcome in late years in the design of cameras, the

WILD LIFE PHOTOGRAPHY

evolution of the fast emulsion, and the exquisite definition and large aperture of the modern photographic lens.

Still, wild life photography needs not be an expensive pursuit, one that calls for costly cameras or lenses, as I have in my collection of three



TERNs IN FLIGHT

Exposure 1-1500 second 15-inch Rapid Rectilinear lens, F-8 on 4x5 plate.

thousand or more negatives, bird and animal portraits that were taken with the simplest kind of apparatus and rectilinear lenses, which are as good (frequently better) as those taken with more costly tools of the wild life photographer's avocation.

To do my bit toward sending a larger army into Nature's fields to picture her children in their infinite variety, I propose taking up, step by step, in coming numbers of Camera Craft, methods of such picturing that I have practiced in securing my pictures. There are no mysteries in wild life photography or secret tricks of the trade, but one does need patience, perseverance, observation, a love of nature and some sort of a camera.

For all rapidly moving objects, as birds on the wing and running deer, a reflecting type of camera is essential. In my time I have used the Reflex, Hall, Ruby, Adams, Ernemann, Mentor, Ensign and the Graflex. I have secured as good results with one as with the other and, for the class of work for which the reflecting type of focal plane camera is preeminently fitted, it is an indispensable part of the wild life photographer's equipment.

The lens for this type of camera is merely a question of pocketbook. In the reproductions that accompany this article will be seen some examples of speed work that were made with the, now, despised rectilinear lens. I have others that were made with the f-4.5 anastigmats. My photographs have their value, however, from the subjects and the opportunities pre-

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sented to secure them rather than from any fancied necromancy of the lens-maker's skill.

With a reflecting type of camera for use in wild life photography there are certain desirable attributes. First, a generous extension of bellows so that long focus lenses can be used, or different parts of a non-symmetrical convertible doublet utilized. Second, rigidity in construction when used at full extension. A camera that in my estimation answers every need in this direction is the revolving back Auto Graflex in the $3\frac{1}{4}\times 4\frac{1}{4}$ or 4×5 size.

The question of lenses is a moot one. The telephoto is useless for use on a reflecting camera. The newer long focus lenses used at short bellows extension, such as the Ross Telecentric, fill a long felt want. But when it is explained that the majority of the photographs in my collection of birds in flight, "frozen" by a 1-1500th of a second exposure, were made with an ancient Rapid Symmetrical (a rectilinear) made by Ross, a "Long Tom" of 15-inch focus that has to be throttled down with Waterhouse stops, and which cost me the noble sum of \$12, the question of lens needs not be rated too high.

For other phases of wild life photography, that of portraits of mother birds on their nests, of the nest and clutch of eggs, of feeding birds, birds at rest, animals in the brush, the stand camera of some sort or another, with a convertible lens and shutter working from 1 second to 1-100th, is all that is needed. A camera that can be focused from the front and back will be found superior to one that can be focused from the front alone. A rising and falling front, a swing back and a reversing back are most desirable in this class of work.

Another type of camera useful to the wild life photographer in a supplementary capacity is some member of the vest-pocket family. Mine is a $2\frac{1}{4}\times 2\frac{1}{4}$ Icarette, with a Beck Mutar lens working at $f\ 4.9$ in a compound shutter utilizing roll film. I have more record pictures of inestimable value made by this pigmy of the camera race, taken from Louisiana to Labrador, that I could recount in a volume of Camera Crafts. The ideal camera, everything considered, would be the $2\frac{1}{4}\times 3\frac{1}{4}$ size.

All, in wild life photography, is not the camera, nor the lens, nor the plates used. These are necessary, or better, indispensable tools. Before we can use them to advantage we must have our "blinds," or "hides," as our English cousins term them; our methods of releasing our shutters from a distance, or, in other cases, allowing our subjects to take their own portraits, or by stalking our quarry and getting their images by "snap shooting."

Such methods will be dwelt on in detail in succeeding installments with explanatory photographs of apparatus I have had in use for the past dozen or more years together with hints as to finding our wild life subjects.

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SNAPS AT RECENT TRACK MEET



SNAPS AT RECENT TRACK MEET

1. Finish of P. A. A. mile run. Left to right: Denton (C), Smith (S) freshman, Kitts (C), Fiske (C). Smith is the latest sensation in track athletics. He runs all distance events in very good time.

2. "Red" Norris, California pole vaulter clearing the bar at 12 feet 9 inches. "Red" placed first in the I. C. A. A. A.

3. Traer placed fourth in the high jump in the I. C. 4A meet, turning in two of the forty points with which California won the meet.

4. "Tiny" Harcraft was high point man for Stanford in the I. C. 4A meet, by placing first in the discus and shot put. Harcraft was responsible for ten points of the 26½ points Stanford was able to collect.

These pictures were taken with a Popular Pressman and Premo film pack on a rather hazy day, stop F-5.4 and 350th of a second exposure.—G. Allen Young.

CAMERA CRAFT

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An Explanation

There were two features announced for our June issue which we were forced to hold over to this present number.

The report of the Fortieth Annual International Convention, held at Kansas City, Mo., by Edgar Felloes, and "Wild Life Photography," by Stanley Clisby Arthur.

The report of the Pictorial Photographic Exhibition of San Francisco, crowded out Mr. Arthur's article, and delayed photographs from Kansas City forced us to withhold the convention report. If we have disappointed any readers we much regret it, we trust, however, the present issue will make amends for the unavoidable delay.—E. F.

Photographic Proficiency

The School of Photographic Proficiency to be held during the month of August, under the sponsorship of the P. A. of A., in the P. A. of A.'s own building at Winona Lake, Ind., is evidently meeting with the approval of the craft as over fifteen applications have already been entered and any number of inquiries have been answered.

This school will be a post-graduate course this year. That is, no students will be accepted who have not already worked in a studio. Full fledged photographers, owners of their own establishments, as well as employes are entering their names and as only a limited number can be accommodated, we suggest that those figuring on attending or on sending some employe, make their application at once. With each application the initial payment of ten dollars must be made, this ten dollars, of course, applying on the full fee of fifty dollars which all students must pay. This fifty dollars covers all expenses of tuition and material for the entire course, lasting the whole month of August.

Board and lodging can be obtained most economically at Winona Lake—we understand from \$8.00 a week up, according to requirements. Winona Lake itself is a summer resort and a Chautauqua is held there during the summer. Concerts by celebrated bands and singers are given there daily and the fee for attending these is very trifling indeed. There is a fine lake for swimming and boating, and everything else to make the stay there most enjoyable. In fact, the students will really be having a summer vacation.

William H. Towles of Washington, D. C., is the principal instructor and head of the school. He will be assisted all the time by the best experts from

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all the various manufacturing concerns, by an expert retoucher, by lecturers and by all other well known photographers who will go there to help Towles. building with all necessary apparatus of every kind—lights, cameras, lenses,

The manufacturers have been very generous in supplying the school printing machines, paper, chemicals, plates and films. There will be nothing missing that goes into the make-up of a most modern studio equipment and the students will be taught the most modern ways of producing high class photographs.

The Towles ability as a teacher is too well known to need any boosting from us. He is not only in the front rank as a portrait photographer but he has had years of training in teaching what he knows.

The fee required of the students is a most moderate one and there will be no extra charges for books, materials, supplies, etc.

The school course will cover posing, lighting, negative making, dark-room work, retouching, printing—using all the standard brands of paper, etc. Lectures on the proper use of lenses, etc., the various forms of artificial light and other subjects will be given.

Applications, with the ten dollar part payment, should be sent in to the General Secretary of the P. A. of A., at 421 Caxton Building, Cleveland, Ohio.

It must be remembered that this School is not a money-making proposition. The expenses are guaranteed and underwritten by the P. A. of A. but it was thought best, after mature consideration, that the cost of running the school should be met as far as possible by those receiving its benefits. If sufficient pupils enter to cover the cost, the P. A. of A. will receive back into its treasury the money it has advanced to make the school possible. If more pupils enter, then the balance on hand will be used to increase the school facilities for next year.

Mr. Towles advises that provision has been made to take full care of sixty students and enough instructors will be on hand to give the proper attention to each one.

It is a unique opportunity and we hope that many of our readers will be among the students this first year.—J. C. A.



A PHOTOGRAPHIC DIGEST

Edited by H. D'Arcy Power, M. D.

The Practical Stereo Photography of Small Objects

The insertion of the word "practical" into the heading of this article calls for a considerable amount of courage, for no study of this baffling problem can be said to have reached a practical stage until it has provided the photographer with a few simple working instructions or formulæ whose accuracy he can put to the proof as easily as he can test the optical properties of a lens of whose construction he knows nothing. A previous conscientious investigation, on geometrical lines, cleared the ground fairly thoroughly, so far as the theory is concerned, but it left a good many hard fences for the man with the camera to get over before he could reach his goal. It is our present object to remove these difficulties altogether, so far as may be, and to present the matter in a form that will allow the skilled and careful worker to obtain exact results by direct exposure without having to carry out a series of vexatious manipulations of his negatives and prints. The photography of small objects always calls for skill and care, and there is therefore an irreducible minimum of trouble which must be faced. It is on the worker's technical and artistic skill that success will ultimately depend.

A few preliminary observations are necessary in order to define, once for all, the object of our search. It is the photographer's desire to be able to present stereoscopically an image on a certain scale, n , and at a certain distance, x , n and x being variable at his pleasure—say that he wishes to show a small entomological specimen magnified 5 diameters at a distance of 12 in. This obviously takes it for granted that size and distance may, in a real sense, be attributed to the image; otherwise the whole project becomes non-

sensical. It will be mere absurdity to attempt to measure the width of a mental impression—if that is all we can obtain—in inches and decimals of an inch, as we shall have to do in every case if we are to arrive at any degree of accuracy. The image must, therefore, be assumed to be real, so far as the eyes are concerned, with a definitely measurable size and distance.

The first indispensable condition that must be fulfilled, if this sense of reality is to exist, is that the light should enter the eyes from the various points of the image as from the points of a real object, *i. e.*, that the eyes should be *focussed* and *converged* exactly as in nature, upon the points in space which a real object would occupy. We are setting out in search of a simple, practical method by which such perfectly projected images can be obtained.

The second indispensable condition is that the image should not be presented to the eyes in a way that makes it impossible for the mind to accept it as true. The photographer, here, as always, has two tasks before him: first to perfect his technique, and then to find a perfect medium by which his results may be expressed. The two media with which we have to deal in this case—the two things that come between the observer and the image, constituting a kind of physical obstacle through which he has to project his mind—are the stereoscope and stereo print. There may be individual workers who have a lively perception of the importance of this part of the problem; but it is employing very mild language to say that as popularly known, the stereoscope generally used, and the prints generally furnished, are hardly conducive to accuracy and success.

The stereoscope almost universally of

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ferred to purchasers consists of a squinting, open-frame contrivance, having two segments of large diameter lenses, mounted with their axes inclined to each other; adapted, no doubt, to allow incorrectly mounted prints to be examined without causing brain fever. Wonderfully cheap and efficient, this appliance is ready to accept anything that is presented to it, and make the best of it. It is an old and valued possession of many a stereo enthusiast, which we must not criticise too harshly. But it will be pure waste of time to aim at technical precision, or even to expect any definite result at all, if the prints are to be submitted to a contrivance of this kind. Again, the open frame allows a multitude of other objects to thrust themselves upon the observer's notice in addition to the image; portions of the woodwork of the stereoscope, brightly illuminated; large areas of the room and its furniture; two secondary images—veritable ghosts—one on each side of the true image—all these create a chaos of confused impressions covering the whole sensitive surface of the retina, in the midst of which it is idle to expect the image to assume any aspect of reality. The stereoscopic image is necessarily a very frail thing. Unlike other realities it is dependent upon one sense only, and that only a fixed glimpse from a single point of view; we cannot verify our impressions by moving about and looking at it from a different angle. To project this image, with its more than soap-bubble delicacy, into open space, where it has to rub shoulders with the crowding images of solid objects about us, is somewhat like hanging a canary in a boiler factory in the hope of enjoying its song. There is a clear demand for a box-form stereoscope, with an efficient central partition reaching right down to the surface of the print, so that nothing is visible to the eyes except the true stereo image. The outer end should be closed with a muffed glass diffuser for viewing transparencies, and a small door on top, carrying a mirror on its inner surface, would allow ordinary prints to be examined by reflected light. The whole interior should be dead black, and focusing should be at the eye end.

This is one of the oldest forms of stereoscope, dimly remembered by the writer from the days of wet-plate photography. It makes a not unpleasing addition to the furniture of a room, and it should be comparatively inexpensive to manufacture.

The stereo prints are usually mounted or made on a white background, which is often highly glazed, and the white border thus left dazzles the eye with its brilliance. This, together with surface reflections, makes it impossible for the observer to forget that he is merely looking at the surface of a flat photograph, possessing some peculiar characteristics which give an impression of perspective relief. The writer had made many dozens of stereo prints before he discovered the virtues of a dark-green mount and a printing paper of smooth but not shiny surface. Even at its best, however, the mounted print can never be a perfect medium, and there is a clear call for the use of transparencies such as more than forty years ago gave wonderful beauty and reality to the stereoscopic image. The great difference in the quality of reflected and transmitted light is not generally recognised. People as a rule are skeptical when they are told that the flame of an ordinary candle photographs white against a brightly sun-lit whitewashed wall—that the direct rays of the candle are stronger than the reflected rays of the sun; but the truth of the statement can easily be verified by experiment. Transparencies have the advantage that they not only allow the interior of the stereoscope to be kept in complete darkness except for the light entering through the prints, but they bring this great compelling power of direct rays to the help of the observer. The old difficulty about storing glass transparencies may perhaps be overcome. The flat film, and still more the roll film of today, would seem to open out new prospects very tempting to the progressive worker.

There is a third indispensable condition over which, unfortunately, neither the photographer nor the observer has any control. The observer must have good sight. Realisation of the result will depend upon acuteness of vision and the sensitiveness of the eyes to variations of distance. When the object photographed is a familiar one

and the image is natural size a very powerful aid is given to the observer's judgment. The contents of the image then allow it to tell its own tale, and the mind will readily place it at its proper distance. But when the image is magnified, or is of some object unknown to the observer, the eyes alone have to perform the work of placing the image and deciding its actual size. As the sensitiveness of the focusing and converging accommodations of the eyes is only acute for near distances, and as the difficulty of precision in technique becomes greater for distant images owing to the minuteness of the changes in the prints, these considerations put a practical space limit upon success, unless, as stated above, the contents of the image guide the mind to a conclusion. In no case must anything appear that would mislead the eyes, for the mind cannot accept the reality of that which it knows to have no existence. Between the limits of 12 in. and 20 in. there should be, for people with normal vision, a very vigorous estimation both of size and distance, quite independently of all previous knowledge of what the image represents. If too long-sighted or too short-sighted, the observer will not be able to see an image distinctly at say, 12 in., and he will have to shift the focus of the stereoscope from its proper position. The convergence of the eyes on the points of the image will, however, remain practically undisturbed, and the loss of reality should be no greater than that which results from the wearing of glasses. The children of the family, with their young and flexible sight and unsophisticated minds, will be the best judges of the photographer's success. The tired sight of old age can hardly hope satisfactorily to address itself to the task.

We have had to detail the practical difficulties in a rather discouraging manner—difficulties that are quite external to the photographer, and lie altogether outside the technical and optical part of the problem with which alone the writer is competent to deal. A false optimism here would lead to deceptive theory, and would only result in so disappointing the worker as to cause him to abandon the attempt as

hopeless. The drawing up of long tables giving precise distances and sizes of the stereoscopic image beyond the limits to which under present conditions they can be realised, without adding a warning notice, is a kind of dishonesty particularly abhorrent to mathematicians. To what degree then may we hope for success? So far as technical accuracy is concerned; so far, that is, as regards the taking of the negative, the preparation of the prints, and the projection of the image, it may be stated with confidence that precision can be attained, and that the inevitable small errors due to mechanical causes will not affect the results in any appreciable degree. The procedure about to be recommended is based upon two elementary and long-established formulae relating to lenses—one dealing with the photographic lens and the other with the lenses of the stereoscope. It has been verified by innumerable cross references and test cases until no room has been left for doubt. The only assumption made is that the lenses in both cases give rectilinear images and have a flat field. Technical success is therefore certainly within our reach; success itself, within practical limits, which experiment will soon decide, will depend upon the way in which the results are presented to the observer and on his power if visualising them. These limits may be much wider than the writer anticipates. There seems to be no reason why the photographer should be content until by a happy alliance of exact technique and perfect medium he succeeds in producing an image that forces itself upon the mind with a compelling sense of reality.

It will be necessary to tax the reader's patience with a little theory, sufficient to serve as a slender thread connecting the various steps by which we arrive at the working formulae. Perhaps, therefore, while the dish is a preparing, it may be well to give the worker a bone or two to go on with, in the shape of some concrete examples of what can be done. Let us turn then abruptly to the photographer's workroom and see with what apparatus he must provide himself. The list is not a long or formidable one.

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(1) The optical data given by the stereoscope have such a dominating influence upon the taking of the negatives and the preparation of the prints that no progress can be made in tabulating possible results until a decision has been reached with regard to the focal length of the lenses to be adopted and the separation of the lens centres. For present purposes, therefore, the writer, after some hesitation, has tentatively standardised a stereoscope having lenses of 4 in. focal length, with their centres $2\frac{1}{2}$ in. apart. This gives an image subtending, from side to side, an angle of about 35 deg. with the eye which will probably be regarded as a pleasant and sufficient field of view. The covering power of the lenses must be considerably greater than this—between 60 deg. and 70 deg.—as for nearer distances of the image the prints will be decentered, and they should have a clear viewing aperture or diameter of not less than $1\frac{1}{4}$ in. The focusing adjustment must allow the distance between lenses and print to be varied from 3 in. for images at 12 in. to 4 in. for images at infinity, *i. e.*, for landscape prints. Abnormally short-sighted observers will require an adjustment to a distance of less than the above 3 in., which should be provided, if possible. The details of construction must be left entirely in the hands of the practical optician. The actual width of the two prints mounted side by side will never exceed 5 in., and the height, which lies at the worker's discretion, will probably not be greater than 3 in., so that a post-card size print holder would be ample. This stereoscope has the advantage that it is eminently suited for viewing landscape prints taken with a 4 in. lens, and would remove the necessity of having two or more appliances for different purposes.

It is to be hoped that the provision of the above stereoscope will not be too grave an obstacle in the worker's path. In order to be useful effectively, there is no choice but to decide at the outset upon the exact optical details of this instrument to which, in a most real sense, we have to *submit* our prints, and by whose judgment we must abide. If a stereoscope of too long focus is used, the image, unaltered

in width, is projected to a greater distance, and its depth is increased. It is opened out somewhat after the manner of a concertina. If the lenses are too far apart the image is brought nearer, made smaller, and distorted. If both errors exist simultaneously the result is utter confusion, and the precise care given to the taking of the negatives is rendered nugatory.

(2) Happily no such restriction is imposed upon us with regard to the next piece of apparatus—the camera. Any small accurately constructed camera with focusing adjustment will do; it need not be greater than quarter-plate, and may be $3\frac{1}{2}$ by $2\frac{1}{2}$ if the longer side is placed horizontally. Unfortunately this latter size is just too small to allow of its being used vertically, as the decentring of the right and left images on the focusing screen brings one edge of each image right to the edge of the plate. Careful use of the sliding front would obviate this; but it will be far safer for the worker, and especially for the experimenter, to avoid this dangerous complication, which is very liable to lead to error. From the time the camera is focused on the object and adjusted for the first exposure it is better to regard it as a rigid body, and simply to shift it as a whole parallel to itself through exactly the required distance before making the second exposure. This movement of the camera rather than of the lens alone reduces the amount of sideways shift of the negative on the plate, since plate and lens both move together, and allows a smaller size to be used. When lenses of exactly the correct focal length are available the extension of the camera will never be greater than 4 in., and never less than 3 in., no matter what may be the scale and distance of the required image; but when for convenience lenses of only approximately correct length are used these limits may be slightly exceeded. In photography very flat objects, such as old coins or medals, it may be desirable deliberately to exaggerate the depth of the image in order to gain greater relief, and in this case a shorter lens would be used—perhaps of only half the calculated correct length—and the exten-

CAMERA CRAFT

sion of the camera would be correspondingly decreased. The above particulars as regards the camera cover not only the few examples about to be given, but the whole infinite range of possible stereoscopic results.

(3) For the following examples a $2\frac{1}{2}$ -in. lens will be required. This is made to do the work of a 2.4 in., a 2.66 in., a 2.29 in., and a 2.22 in. lens, and the results are therefore approximate. A slight error in the depth of the image is introduced, but the difference is so small that it may fairly be desired as negligible. This power of getting practically accurate results with any lens which approximates to the focal length indicated by the formulæ is of great importance, provided it is not pressed too far. It should be kept rigidly within limits so small that it is impossible for the observer to detect distortion.

(4) There is yet one more piece of apparatus the arrangements of which must be left more or less to the ingenuity of the worker. Its object is to give definiteness and precision to his operations just where these qualities are most necessary and most difficult to attain. Some small object is about to be photographed—say, a 2-in. or 3-in. cube. It has to be placed at a certain distance in front of the lens in order that the perspective may be correct; and the resulting negatives must be on the exact scale required for the stereo prints. But what, photographically, is the *width* of this cube when it is placed somewhat diagonally to the camera, as it should be? And, since its nearer points and its farther points are at different distances, what

is to be taken as the working distances? And how is it to be known, by inspection of the focusing screen, whether the negatives will be on the proper scale? These questions really form the crux of the photographer's task, which becomes increasingly difficult when the object is not geometrical. The arrangement about to be described removes all uncertainty as regards width, distance and scale, and, at the same time, clearly marks out on the negatives the exact boundaries along which the prints are to be trimmed before being mounted side by side. In its best form perhaps the apparatus consists of two vertical hanging cords, weighted at bottom and slidably suspended at top from a horizontal rod so that the distance between them can be exactly adjusted to correspond with a measurement which in every case is given by the working formulæ. Oscillations in the cords will be effectually damped out by allowing the weighted ends to dip into water, or, still better, into thick oil. Or two long straight knitting needles or lengths of Stubbs' wire may be fixed vertically into small feet or supports, so that each wire and its supporting base looks somewhat like a capital L. Two round-headed screws under the wire end of the base and one screw at the other end will allow the whole to be adjusted until the wires are perfectly vertical. They can then be readily moved about on any flat surface until the distance between the wires is that required by the formulæ.—H. C. Browne, B. J. of Photography.

(To be continued.)

The man who says, If you want a thing done, do it yourself, is usually working for the man who says, Get someone who knows how to do it.

—Vision.

A KNIFE FOR MOUNTS—Cutting heavy cardboard mounts is troublesome unless you have a good knife that can be kept sharp. The writer uses a file that has been ground. It will cut cigar box wood with two strokes. You can have an old file suitably ground in any machine shop for a few cents and it will last a lifetime.—George H. Boesken, Cleveland, O.

THE AMATEUR AND HIS TROUBLES

Conducted by Edgar Felloes.

Blocking Out Negatives

Blocking out is not so difficult an art as retouching, yet really good hands at blocking out are not often met with, even expert retouchers sometimes being unable to block out a negative in a convincing manner.

A negative that has been correctly blocked out will print as though it had been taken against a white ground, and will deceive the uninitiated always and sometimes the expert also, and this kind of blocking out is the only kind that matters.

The essential tools for this work are a couple of good sables, some water colour, a knife, and some cottonwood or wash-leather. A common mistake is to choose a very fine brush. A stout short-haired sable is essential, and its size should depend on the detail of the negative. For a half-plate head a No. 3 or 4 sable will not be too large if the point is good. For machine studies, smaller brushes may be needed for very fine detail, but should not be used otherwise. For filling up, a large camel-hair mop will save time, while a stencil brush is useful for softening outlines of hair, etc. Indian red paint and Payne's grey or neutral tint are very useful, though Photopake can be used instead of the red if desired. For commercial negatives a short steel straight-edge, a draughtsman's "curve," and a ruling pen are also wanted.

The first thing to do is to see that brushes are clean and in condition, that the paint is mixed well and of a good consistency, and that the negative is clean. It is always a sound plan to go carefully over the surface to be painted on with a damp leather or swab of wool, as the slightest trace of grease or other foreign matter may spoil the job completely. With



Arrows Show Direction of Brush Strokes

glass negatives it is usually best and easiest to work on the glass side (this does not apply to commercial photographs), as this side will always clean quickly and take paint well, besides giving diffusion in printing. Exceptions are large negatives of "indented" subjects, such as full-length groups. Blocking out on the glass side of such pictures may prove difficult, if not impossible, to do in such a way that it will everywhere print in correct register with the image. With single figures it very seldom happens that this difficulty crops up provided the work is done with the eye directly over the center of the figure all the time, and the negative is kept flat on the desk. This latter, by the way, is as welllowered rather more than

is usual for retouching, though that may be a matter of taste. When the rule and pen are used, however, the more the desk approaches to the horizontal the better.

Having decided which side of the negative to work on, the brush is loaded and brought to a point. For all definite outlines red paint is the best. For hair and other soft lines blue or grey is better. With the negative on the desk a line can be started off at any point on the side against the brush hand. In the illustration the first operation is marked out in black with arrows showing the direction of the different strokes used. With this negative glass side up, and right way up on the desk, a convenient point for a right-handed worker to start would be where the hair joins the neck. From there, a bold sweeping line is drawn downwards, following the outline of the neck, beads and blouse. Had the latter two been prominent breaks in the flow of the line, one sweep would not have served. The procedure then would have been more like that for the bottom line of the back hair, which was done with a number of distinct strokes; in this case, back-hand ones. Turning the negative half round to the right, so that the top hair comes against the brush, the stroke A is put in backhand, and the various top curves with separate up-and-down strokes, using the direction that is most convenient in each case. Wherever there is a definite corner, it is always best to start outwards from it. Don't run into it, and, above all, don't run over it and continue without a break. Outlines like these are best done in definite sections, each section meeting its neighbours in a clean join. Turning the negative upside down, the tip of the nose offers a good starting place. From there, working downwards, three decided sweeps will join up with the part just done. But they must be decided sweeps, particularly the line on the nose. Any hesitating, creeping, niggledy line here would ruin the resemblance, the blocking out, and the photograph. With the negative turned yet a little more, the mouth is covered with three short curves done backward in this case, though downward strokes might be

easier at first. The line between the chin and shoulder is composed of two lines, one done with the face of the picture looking down, and the other with the negative turned the other way up. The heavy sweep on the arm is started from the margin and run to the bend of the shoulder, where a backhand stroke, which could also have been done in the other direction, joins it to the line from under the chin.

Having completed the outline, it is examined for inaccuracies, any small deflections from the truth, unless done deliberately with the object of improving the shape of the head or features, may possibly be remedied without washing out and re-doing. A raggy outline of hair may be improved with a smudge of blue or grey paint well stippled with the stencil brush, though it is difficult to do this so as to get a good effect on the print. If the paint has gone too close anywhere, it can be eased away with a clean damp brush if on the film side, or a sharp knife if on the glass. With the outline correct, it is a simple matter to fill up with a large brush or mop, but the paint should be fairly thick, and a coat on each side will do no harm. If drying is required to be quick, spirit should be added to the paint instead of water when mixing for use.

Commercial negatives, of furniture, machinery, etc., are best done on the film side, as it is easier to rule clean straight lines on this side. A little practice may be necessary to get into the way of handling a ruling pen, but it is not at all difficult. A good load of paint should be taken up between the points, and its consistency is important. If it is thick, the extreme point will soon clog. If it is thin there will be a danger of blotting from the edge of the rule. A common trick with draughtsman is to draw the pen over the back of the hand, the skin being able to start the flow more readily than even paper will, and much more readily than gelatine often does. Once started, the paint will flow until the pen is empty, provided it is not put down for long enough to let the point dry. In drawing a line with the pen, one should aim at starting and finishing one-sixteenth of an inch short. In this

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way the complete line is cleanly covered, as a rule. If there is anything short, it can be easily filled in after; but an over-run is hard and messy to clean out. When it is necessary to clean off a line, it should be done with a clean, sharp "swipe," with a wet leather or swab, starting from inside and clearing the paint over the unwanted part of the negative. Curves are often done freehand, but wheels are rather hard to do cleanly without guides, and the "draughtsman's curve" will assist very often in getting a more definite line. These "curves" can be bought in an endless variety of shapes, and a good one will provide guidance for a large number of bends and corners. A little practice is necessary before one can use a curve with confidence; it is rather hard to keep the pen point parallel to the curve all the way round, the resulting line often being clean enough but not exactly in register.

To finish off a blocked-out negative, it is necessary to make some allowance for the base of the picture. A blocked-out figure cannot be left to stand on nothing, neither can a blocked-out railway engine. The former can be put right by scraping away some of the paint round the shadow side of the feet, preferably in zig-zag lines. The engine would look all right if a length of line were left under each side of wheels, and a stationary machine or piece of furniture should have a little flooring left in the form of a square, not forgetting the perspective when designing the square. Of course, if an air-brush is in use, grounds can be put in on each separate print, but when the photograph can be taken on a clean and light floor, the original ground has advantages, and should be partially included, leaving just enough to give stability to the picture. For block-making purposes, a photograph can be completely blocked out and the ground left to the fancy of the block-maker's artist if desired.

Forthoughts helps a lot with machine and furniture photographs, and if a sheet is stretched behind the object before photographing, the subsequent work will be easier. A print made previous to blocking out will also help. It is almost essential in the case of a machine photographed

with other machinery behind it. Very fine detail, such as electric wires, is very difficult to block out, and very often it is best to paint it over entirely and restore it with a sharp knife when the paint is quite dry. The most difficult thing I have ever struck of this kind, is the wiring of an O. E. T., crane, it being impossible to block it out or to recut it decently. In this case, I think the most satisfactory way is to paint over all the wires, leaving the insulators distinct, and to draw in the wires with a retouching pencil on the prints. If technical accuracy is necessary, a blue print of the wiring can be requisitioned to make things clear and prevent a wrong number of wires being added. Another dodge which has proved useful is to do any long straight lines with stripes of lantern-slide binding, instead of using the pen. In the case of a piano this may prove quicker and easier, if the round corners are carefully tackled with the brush.

Blocking out can be protected against scraping by covering with thin gummed paper, or varnishing. Without either of these coverings a negative must be kept in a tissue envelope or it may soon meet with damage or else damage other negatives with which it comes in contact.—Thermit.

—British Journal of Photography.

Fixing Baths for Bromides

The British Journal of Photography expresses a new thought on the subject of acid fixing baths. It has become an almost universal practice to use the acid bath in the making of bromide prints. There is more than one reason a plain solution of hypo is to be preferred. When used by itself, without the addition of alum sulphite, or any of the usual components of an acid bath, the hypo goes further as far as fixing is concerned. The use of an acid bath is one of the most common causes of incomplete fixation of prints on developing papers. This bath keeps practically free from color until it is exhausted or has reached that stage of exhaustion that fixing takes place slowly. On the other hand a plain hypo solution gradually becomes darker in color as prints are fixed in it, and this gives a warning signal that it is reaching a stage when it must be renewed.

FOR THE PROFESSIONAL

In the Interests of Commercial and Portrait Photographers.

"The Get Together Spirit"

We attended a recent meeting of photographers, assembled to discuss the feasibility of forming a State Photographic Association for California. That get together feeling was most noticeable in the friendly gathering of men and women at a little dinner dated for June 6th last, in this city.

The Commercial Photographers of San Francisco, organized more than two years ago, having experienced the benefits of association, were desirous the Portrait men should organize and help them secure this state association at San Francisco.

L. B. Morton, President of the Commercial Photographers Association of this city spoke of the organization. He gracefully acknowledged the helping hand extended to them by the Commercial Artists' Association. He reminded his fellow members how at first the commercial photographers of this city were indifferent to each others' welfare. They were strangers in fact though not in reality. They even avoided each other. Each thought he could do best as the "one and only." Each was determined that no one should interfere or "nose in" on his business. But they were all wrong. They did not understand.

Mr. Morton reminded them of their first meeting. How they sat around the room more or less "starchy" and distant. Some seemed to be hiding something, a pet formula perhaps, and he'd be darned if he'd give it away. No, sir! That was the spirit of that meeting, but how different it all is today. Many men have learned it is possible to work together, and there is such a thing in reality as our mutual good.

Ninety per cent of the commercial photographers of San Francisco now belong to this association and that says a great deal. We believe that men collectively are growing broader in their vision, they are learning to trust each other more. The old way, the suspicious and distrust-

ful way has long been tried and found wanting; here is the opportunity to try the new way; at least give it a thought. That aloof individual who pretends to mind his own business is perhaps not near the hero he imagines. He counts as a unit. He can do but little for himself and nothing for his neighbor. He is handicapped by lonesomeness.

Mr. Young of Lothers & Young, commercial photographers of this city, gave an account of his experiences with other commercial photographic organizations in the various Eastern cities he recently visited. Without exception all reported benefits gained therefrom and no one desired a return of the days of "splendid isolation," where one man was pitted against the other in price slashing and mutual destruction. If association has done nothing else, it has certainly driven home the lesson that this was poor business.

Edgar Felloes, Associate Editor, Camera Craft, spoke of some of the things he saw at the Kansas City convention.

L. A. Ireland, Secretary of the Association, spoke to the visiting photographers, suggesting plans for organization. The portraitists were asked their views and all agreed it would be to their advantage if they could form an association.

In consequence of there not being a sufficiently representative gathering of portraitists present, it was agreed to appoint each visitor a committee of one to canvas members of his profession in his vicinity and he should report to Mr. Ireland who had consented to be secretary pro tem of this prospective organization. Meanwhile it is the intention to circularize portrait photographers in this State. There will be a second meeting next September when it is hoped that the portrait men will attend in goodly number and a definite plan will be formulated. The ultimate object is for the State Association to become affiliated

FOR THE PROFESSIONAL

with the Photographers' Association of America.

Camera Craft, is satisfied it will be to the advantage of the photographers of this State to form an association. It really is nothing new. The photographers of the State of California are backward in this matter, that is all. The other States to the north of us have enjoyed the benefits of organization for some years and why our portrait photographers should prefer to remain isolated is past our understanding.

Even our amateur friends in this city have organized an annual International Salon for mutual improvement. The professionals should do likewise. They should have their periodical state convention

where they could exhibit their work, and we happen to know a loan collection of 100 best photographs for the year could be secured from the National Convention. This is well worth trying for, it has an added educational value.

Besides this, by working together a photographic school could be secured through the aid of the National for a short period during the summer with competent teachers for the benefit of photographers or their assistants. This post-graduate course should commend itself to the profession. These things can all be secured by co-operation. Is it not better to co-operate and secure these benefits than continue to play—"in our own little backyard?"—E. F.

CLUB NEWS AND NOTES

Club Secretaries and others will oblige
sending us reports for this Department

California Camera Club Yosemite Outing

Personally conducted by the California Camera Club, Saturday, July 22d to July 29th, inclusive, \$55.00, including all expenses.

We extend a hearty greeting to members and friends to join the California Camera Club's outing to Yosemite.

Party will be personally conducted by experienced committeemen, who will make it their special business to look after the welfare and entertainment of their guests throughout the entire trip.

Yosemite by Moonlight—During the period of our excursion in Yosemite the opportunity will be yours of seeing Nature's Wonderland augmented by moonlight. The wonderful evenings we shall spend under these conditions will forever live in your memory.

Cost of Trip—Will be \$55.00 for the entire excursion, covering all traveling expenses, railroad and auto, board and lodging at Yosemite Lodge Annex and box lunches served on train going and coming.

Children's Rates—5 to 11, inclusive. \$38.50.

Get Together Party—Will be held at club rooms, 833 Market Street, Wednesday evening, July 19th, that all may become acquainted. Lantern slides of Yosemite will be shown and other social features arranged.

Itinerary—Special train, special service—San Francisco passengers leave San Francisco 7 a. m. via Santa Fe Ferry, Ferry Building, foot of Market Street, Oakland and Berkeley passengers meet train at 40th and San Pablo Avenue, 7 a. m. Stockton and Sacramento passengers meet train at Stockton, 9:15 a. m. Returning—Leave camp Saturday, July 29th, 10 a. m., arriving in city 7:25 p. m.

Reservations—A deposit of \$5.00 is required. Same should be made at club rooms, 620 Commercial Bldg., 833 Market Street, San Francisco, Phone Sutter 8780. Balance on reservations should be paid before the 15th of July. Tickets will be ready any time after Saturday, July 1st.

Edward R. Shirley, Chairman.

O. J. Heinemann,
Yosemite Committee.

OUR BOOK SHELVES

Making Good in Business

When Roger Babson speaks men stop counting their millions and listen, for the voice is of one who knows and it tells the prophecies, not of business but of better business, less of more business, mark you, but of Christian practice that shall make the day's work more profitable to the race of man. More profitable in substance and in soul.

Until Babson had proven that he held efficiency in his hands as a toy, that he could foretell conditions with scientific certainty through scientific deductions based upon much knowledge, his preaching of the Golden Rule was often received with a cynical smile, but he has made good in this as in all else.

The book "Making Good in Business" will fit into the average great-coat pocket yet it covers a subject on which whole libraries have been written. Babson is comprehensive in brevity because he deals in basic principles. He knows whereof he speaks and he speaks the truth. This is high praise but it is highly merited.

If I were asked which one volume were best for a young man desiring to qualify for complete success, I should say "Making Good in Business." If the question were "What one volume shall most affect a return to the American integrity of commercial intercourse?" I should say, "Making Good Business,"

And because I am not interested in the sale of this book or any book, am not personally acquainted with the author and am in no way subsidized by anyone in the matter, I want to subscribe my name—which is an Editorial transgression—so that none other may be blamed for my enthusiasm and that such few as know me and my habit of careful, stinted praise

may be impressed into doing themselves good by reading this book.

Price \$1.25. Cloth.

Fleming H. Revell Company, 175 p.

Sigismund Blumann.

Famous Leaders of Industry: Second Series

The recognition by prominent educators and readers in general of the value of Edwin Wildman's Famous Leaders of Industry (Page, Boston) has been so universal that Mr. Wildman, editor of "The Forum," has prepared a second series of life stories of some of our greatest industrial leaders—makers of America—and The Page Company have announced the publication of Famous Leaders of Industry, Second Series. In the new volume are Andrew Carnegie, steel magnate and philanthropist; Charles A. Comisky, the "grand old Roman" of baseball; Herbert Clark Hoover, Secretary of Commerce and "practical humanitarian;" Andrew William Mellon, banker, business organizer, philanthropist and, at present Secretary of the Treasury; Lee Shubert, "an Aladdin of theatres;" Harry Ford Sinclair, "the Napoleon of oil fields;" and many other "leaders" whose business or industrial achievements warrant their inclusion in Mr. William's inspiring book.

Making Advertisements and Making Them Pay

The number of books published on advertising is a gauge of the interest which the subject holds for a very large contingent. Millions of dollars are spent monthly in exploitation and the men whose money make the sum are interested in knowing how, why and what. They are becoming more and more desirous of learning the science that does so much to influence their income.

OUR BOOK SHELVES

But the greater deduction from the mass of this sort of literature is that Advertising is a varied and progressive science. The object to be attained may be arrived at variously. One finds a certain way best fitted to his liking and need and another selects a different way. It is the mission of all literature to give us assorted mentalities from which we choose according to our requirements or our own mentality.

"Making Advertisements" has certain elements not found in other books; Getting Out of a Rut is a potent chapter. And that part devoted to "The Right Words in the Right Place" will furnish many a busy man with a short road to advertising betterment.

The author has fancy and does not fear to make his text charming with style and reference to matters of culture. The closing chapter, "Where is Advertising Going?" would in itself make a framework for a liberal education.

"Making Advertisements" is written by Roy S. Durstine, contains 264 pages and is published by Charles Scribner's Sons, New York City.—S. B.

Smiling Pass, a Sequel to Smiles

A Rose of the Cumberland

The thousands that have read and loved Mr. Robinson's earlier story of the little Cumberland mountain girl, whose bright courage won for her the affectionate appellation of "Smiles," will eagerly welcome her return.

As Rose Webb—adopted granddaughter of the giant mountaineer—she made her youthful dream come true in spite of all obstacles and became a trained warrior against what she once called "the bugs an' grubs what make the flower children wilt and die."

Now as Rose McDonald, the young wife of a famous children's specialist, she comes home after two wonderful years spent working with him—home to her own beloved mountains, broadened in intellect, deepened in human understanding, but

with all her former sweetness and appeal.

Marriage is NOT the end-all of romance and in this further story of her life "Smiles" is the center of a new drama, more virile, more stirring than that of her childhood, for the life-threads of several strongly conflicting characters are closely interwoven with her own. When a girl she found herself faced with problems which wrung the heart and tested the courage. As a woman, equally serious problems are hers, but again she comes "smiling through."—The Page Company—Boston.

The Sands of Pleasure Re-Issued

Another old favorite, recently re-issued under the new St. Botolph Society imprint (for which The Page Company, Boston, stand sponsor) is Filson Young's "The Sands of Pleasure," which is, as we recall it, a tense, strong tale of a region held to be out of bounds—Bohemia. But the publishers assure us that "it is a fine realistic novel, written with the healthy enthusiasm of youth for all there is in life"—"no creator ne creatura mai—fu senza amore."

The Marjory—Joe Series

By Alice E. Allen

"The Page Company have a highly privileged place in the heaven of childhood. Most of the choicest books, from 'Pollyann' onward, beloved by children, and if they would confess it, by their elders also, bear the Page imprint. None of them are more pleasing, and complete, in their way, than the 'Marjory—Joe' Series, by Alice E. Allen."—Family Herald and Weekly Star, Montreal, Canada.

Marjory's House Party

or What Happened at Clover Patch

Each one volume, cloth decorative, illustrated, per volume, \$1.50.

"Alice E. Allen is well known and beloved by children for her jolly 'Marjory—Joe' Series. She certainly knows how to please the children and tells them stories that never fail to charm."—Madison Courier.

Published by The Page Company, Boston, Mass.

You cannot put over what you put off. Delay weakens your determination; postponement will push away your achievement.

—The Silent Partner.

NOTES AND COMMENT

A Department Devoted to the Interests of our Advertisers and Friends
In it will be found much that is new and of Interest

While the notices under this heading are strictly in the nature of information and news for the benefit of the reader, and are neither paid for nor actuated by our advertisers, we are compelled by the Postal Laws to mark them as follows:—Advertisement.

Reported by William Wolff

F. E. Alexander of Chico, P. S. Daniels of Art Craft Studio, Modesto, W. R. R. Potter of Mill Valley, H. Sackrider of Marysville, attended the meeting on June 6th, for the purpose of forming a Photographers Association of California. It was an enthusiastic meeting and you will hear more of it later.

J. B. Rhea of Monte Rio has sold his studio and gone to ranching.

Another couple to visit San Francisco during June was Mr. and Mrs. Bert DuVaul of Eureka. They report roads in fine shape.

W. F. Goodner left June 7th, to do home portrait work at Santa Barbara.

Leopold Hugo's Studio in Santa Cruz is a show place of the coast.

George W. Reynolds, Photo Craft Shop, Santa Cruz reports greatly improved business conditions. Says it is owing to good roads as people in crowds visited his town as early as March this year. His business for May was double that of the same period last year.

N. Lennes of Hollywood has devoted considerable attention to Dorotypes and Opals with great success. These are made on Hammer plates. It was Mr. Lennes who brought E. S. Curtis' Indian pictures before the public notice by the very effective Dorotype process.

The Pako Corporation recently inaugurated a very unique selling contest, in which photographic stock house salesmen from all parts of the country participated.

The first prize, a very handsome gold watch, was awarded to William Wolff, representing Hirsch and Kaye of San Francisco, who has achieved the distinction of

selling more Pako equipment during the term of the contest than any salesman who took part. Two other of Hirsch and Kayes' salesmen, Mr. N. Siller and Mr. H. G. Von Orschot, also made a creditable showing, the latter having been awarded an elaborate traveling set, for volume of sales.

Photographic Fair, London

Burroughs Wellcome & Co.'s Exhibit

An original feature of Burroughs Wellcome & Co.'s exhibit which occupied its usual prominent position immediately to the left of the entrance, consisted of a screen in which 88 quarter-plate negatives were displayed by transmitted light. Each of these negatives was developed with a separate fluid ounce of "Tabloid," "Rytol" developer and each ounce was used for one negative only. The result was a striking demonstration not only of the efficiency of "Tabloid" "Rytol" but of its economy since it was shown that the contents of each carton are sufficient to develop at least 88 quarter-plates. The demonstration was the more effective because no attempt had been made to push the developing capacity of "Rytol" to the limit. It showed its minimum rather than its maximum capabilities.

Last year, it may be remembered, this firm showed a screen of 250 prints developed with the contents of a single carton of "Tabloid" "Rytol."

A noticeable feature of the negative was that they included a great variety of subjects and also demonstrated that according to the time allowed for development the contrast can be controlled to suit the whole range of printing material.

NOTES AND COMMENTS

available to the photographer, from contrasty gaslight paper to platinotype and carbon.

Photographers who have not secured the firm's latest publication, "The Right Way in Photography," should apply to Messrs. Burroughs Wellcome & Co. at once for a free copy. It is an opportunity that should not be missed if only for the striking demonstration of the value of time development with "Rytol" which this little book contains. See advertisement on another page. These "Tabloids" may be obtained from Marsh & Co., 712 Market St., San Francisco, California.—Advertisement.

Optical Divergence Determiner for Cameras

Is there anything more exasperating than when developing your films to find some negative of an interesting landmark or some tall building out of perspective. Perhaps the top of that building or a monument may be missing and in its stead we have a wide expanse of street showing which has no interest in the picture. Now, if one were using a camera fitted with a ground glass we could have seen this error and rectified it in time by raising the front and lens. With film cameras novices are very apt to point the camera upwards to secure the upper portions of buildings and this invites certain failure.

It was to meet this difficulty that Alfred Freeman, of Colorado Springs, invented and patented an ingenious and practical device for preventing all these forms of linear distortion. This little instrument has a name longer than itself and a formidable one at that, but the manipulation of the appliance is simplicity itself, and it can be relied upon for perfect accuracy. It is a fact, that any picture showing buildings (that require a tilted camera to embrace the view) can be made to yield perfect results by the employment of Freeman's Optical Divergence Determiner for Cameras. This little instrument is popularly known as the O.D.D., a name easier to remember.

The O. D. D. is a very sensitive plumb with a pointer and two scales indicating degrees. It may be held against or attached to the camera. When the camera

is tilted to the angle necessary to embrace the view, as indicated in the finder, the pointer will indicate on the scale the number of degrees the camera bed is out of the horizontal. If we take that number of degrees and add it to the front of the camera, or in other words, if we use the rising front and elevate the lens by that same number of degrees we may work the camera on an even or horizontal bed. Our elevated lens will have made that possible, and there will be absolutely no distortion. The reader should turn to the announcement of The A. Freeman Pictorial Photo and Mfg. Co., on another page of this issue, he will be glad to give all particulars.—Advertisement.

Technical Photographers and Microscopists Form Society

A new national technical society has been organized as a result of a preliminary meeting held during the convention of the American Paper and Pulp Association in April. At a meeting at the Chemists Club, New York, last week, the Technical Photographic and Microscopical Society was fully organized, with the following officers:

President—James McDowell, of Sharp & Hamilton Mfg. Co., Boston.

Vice-Presidents—John H. Graff, of the Brown Co., Berlin, N. H., and Bennett Grotta of the Atlas Powder Co., Tamaqua, Pa.

Secretary-Treasurer—Thomas J. Keenan, editor of paper, New York, formerly Secretary of the Technical Association of the Pulp and Paper Industry.

At the organization meeting, Charles F. Roth, who acted as temporary chairman, gave an account of the preliminary organization work, and outlined future possibilities. It is planned to hold a general convention of industrial and microscopical photographers in connection with an exhibition of photographic work, chemicals and apparatus to be held at the Grand Central Palace, New York, during the National Exposition of Chemical Industries, September 11-16, 1922.

An active committee on membership and publicity was appointed with A. E. Buchanan, Jr., as chairman, and Charles N.

CAMERA CRAFT

Winter, D. H. Killifer, Douglas G. Woolf, Ernest Eberhart, J. A. Scheick and A. M. Crawford.

The next meeting will be held at the Hotel Astor, preceded by a luncheon for which a nominal charge will be made, and all interested are invited to get in communication with the secretary at 251 West Nineteenth Street, New York. The annual dues are nominal, consisting of \$5. Several of the members already registered are connected with the paper industry.

Popular Dollar Price

We were much surprised, when Mr. Milner informed us he was reducing the price of the gauge to one dollar, especially as it had a satisfactory sale at \$1.50.

Mr. Milner added that a European distributing arrangement just completed, guaranteed a greatly increased production, and this would cut the overhead charges per gauge to a point where he could take less and make large gains in the volume of business done.

This is an opportune time to make this cut, as consumers in all lines are more than ready to buy when things become normal. Business seems to have rounded the corner; with the country in exceptionally fine shape there should be nothing ahead but increasing prosperity.

We have noted a decided pick-up in the sale of Photo-supplies; dealers everywhere are experiencing a steady and substantial increase in business. Mr. Milner has his eye on the future, and is after his share of this healthy business.

In its lately added leather case, and with its efficient performance, The Milner Light Gauge will be a wonderful value at the new price of one dollar, and we feel Mr. Milner will be amply rewarded for passing the proportional reduction through all hands to final user.—Advertisement.

The Hyperion Diffusion Portrait Lens

Another product of the Gundlach-Manhattan Optical Company that is being received with great favor by discriminating photographers is the Hyperion Diffusion Portrait Lens F. 4. Users of this fine portrait lens already include many of the

best known portrait photographers in the country. Almost daily the manufacturers receive letters praising the Hyperion Diffusion Lens. Following is a representative letter from an enthusiastic Hyperion Diffusion Portrait Lens user.

"I am writing this letter to tell you that the local section of photographers with their guests will meet here at the studio on the 17th of April. The Hyperion Lens which we now have in our possession will be given a very strong boost as I consider it one of the greatest lenses I have ever had in my possession and the more I use it the more I like it."—Trinity Court Studio, R. W. Johnston, 313 Sixth Avenue.

Hyperion Diffusion Portrait Lenses & Improved Korona Folding Studio Stands may be ordered through any regular photographic dealer, and new attractive folders, fully describing and illustrating both of these products, will be gladly sent to any photographer on application to the Gundlach-Manhattan Optical Company, Rochester, N. Y.—Advertisement.

Book of Cinema Apparatus

We are constantly receiving enquiries from our readers as to moving picture outfits. Those who are interested will be pleased to learn the well known firm, Bass Camera Company, has its latest edition of the Bass Book of Cinema Apparatus ready to deliver.

This is the only book issued in this country quoting a complete line of taking, developing and projecting apparatus. Readers interested in or contemplating this line of work should write for a copy, it is theirs for the asking. This catalogue is fully illustrated with cameras of various makes, tripods, developing tanks, printers and projectors for various purposes; also are listed the various standard makes of motion picture lenses.

A chapter on the "Principles of Cinematography" is included and a list of books useful to the profession.

With the above catalogue, Bass issues a Used Camera Supplement. Address all enquiries to Bass Camera Company, Motion Picture Division, 109 North Dearborn Street, Chicago, U. S. A.—Advertisement.

NOTES AND COMMENTS

A Guarantee—Keeping Posted

When purchasing goods by mail it is just as well to know that the transaction is on the "money back if not absolutely satisfied" understanding.

Hathaway Dunn, Inc., formerly A. W. Hathaway, 22 East Thirtieth Street, New York City, do business this way. This firm is a steady advertiser in Camera Craft and may be relied upon. Mr. Dunn of this firm is known all over the country as "Dunn," the Lens Man, an undoubted authority on his subject.

Hathaway Dunn, Inc., will be very pleased to send you their monthly Bargain Postals if interested. We have one on our desk listing some high class hand and pocket cameras which will certainly meet some one's requirements at greatly reduced prices.—Advertisement.

The Latest Printing Paper

Every once in a while we receive enquiries from professional photographers asking us to recommend some foreign make of paper. The reason for their enquiry is, they are in search of something different, something to boost trade or to make a more attractive show case. The idea is all right and praiseworthy, but let us be sure we have looked over the products of our home manufacturers.

Willis & Clements of Philadelphia, a firm we have known since our boyhood, since the introduction of the Platinotype hot bath process, is again to the front with another pleasing novelty. This time it is the warm black Satista on cream stock, designed especially for portraiture of the better class.

This paper is absolutely matt, the print shows clear on the surface and is of a charming warm tone. We have received a sample print and can well judge the beauty of it. There is another little item that wont come amiss, this paper is less expensive than Platinotype or Palladiatype.

For the high class professional worker, and also for the pictorialist, this paper should meet with an instant demand. It has real merit and real beauty to recommend it.

The manufacturers offer to mail a por-

trait print to those photographers who ask them to do so; or, make a free sample print for them from their own negative. Address enquiries to Willis & Clements, 1814 Chestnut Street, Philadelphia, Pa.—Advertisement.

The Air Brush

Practically all young people reach an age where the question of adopting a trade or profession has to be faced. There are many people who have a natural leaning to the fine arts. We have heard the expression, "I would rather paint than eat." This is a strong statement no doubt, but it is quite possible to do both and then some.

For those who feel such a strong calling to art work and have to make a living we would unhesitatingly say take up Commercial Art, this will greatly increase your chance of eating—a little feat of mighty importance.

The most useful tool for the commercial artist, and the one that has done more for the welfare of that body of workers than any other we know of, is the Air Brush. There are several makes of air brushes on the market and artists make their living by the adoption of any one of them. Among the very best of these instruments stands the Wold Air Brush, and the work it produces in the hands of the competent can not be surpassed. The instrument itself is as near perfect as human ingenuity can make it. The Wold Air Brush Company will send you a booklet for the asking, giving particulars of their air brushes and prices, and in it you will find listed all supplies and books for self instruction. This latter is a great convenience, it enables those who wish to master the craft by home practice to do so and this will ultimately lead to congenial occupation. It is not a question of "Can I make a living by this means," thousands are doing so, for the demand for this kind of work is steady and it grows, it is based on a necessity.

Air brush work is necessary in all high class catalogue work, in a large proportion of show cards and advertising designs. The air brush supplies the quickest and best method of applying color, and

as a commercial tool it stands supreme. No, it is not a question of demand for this class of work, that is constant. It is purely a question of expertness and that is secured by practice.

If interested in the subject, the reader should write to the Wold Air Brush Mfg. Company, 2173 North California Avenue, Chicago, Ill., U. S. A. He will receive a prompt and courteous reply.—Advertisement.

A New Catalogue

The Wollensak Company have just issued a new catalogue well got up and full of information.

This Company was organized twenty-two years ago. From a modest beginning it has developed a plant of 80,000 square feet of floor space, said to be the largest in the world today devoted exclusively to the manufacturer of photographic lenses and shutters.

Just what a photographic lens will do is of especial interest to the prospective buyer. To give this important information is the intention in this catalogue. We have each lens illustrated and several pictures of the work of each lens by various operators. We have also various technical data pertaining to each instrument, any one can at a moment see the capabilities of each objective and gain a good understanding of the information sought.

We draw the especial attention of commercial photographers to Series IIIa Extreme Wide Angle Lens working at F:12.5. Every commercial photographer knows, even an angle of 90 degrees will not always meet his requirements. This Series IIIa has been specially designed by the Wollensak Co., to embrace with moderate stop 100 degrees, and will give the photographer a reserve power to meet certain exacting requirements.

The question of shutters undoubtedly the next important thing to the lens itself is treated, and ample illustrations make clear the descriptive text.

The chapter devoted to Terms Pertain-

ing to Lenses, also illustrated, will make clear to the novice what is meant by Focal Length, Speed, Depth of Focus, Angle of View, Curvature of Field, Spherical Aberration, Coma, Flare, Chromatic Aberration and Astigmatism. These are not all the terms treated upon, but any one reading this chapter will most likely find he has increased his stock of useful knowledge.

If this excellent little booklet will interest you, it is yours for the asking. Address, Wollensak Optical Company, Rochester, New York.—Advertisement.



The Successful Picture

.. The prize winning picture in the Meteor Flash Powder Prize Competition for the month of March was made by R. A. Barber, 1407 Middle Ave., Elyria, Ohio.

There undoubtedly is a great satisfaction in winning a prize, better read up the Meteor Flash Powder advertisement on another page and see just for the fun of it, if some of this prize money can not come your way.—Advertisement.

SAN FRANCISCO
PUBLIC LIBRARY

CAMERA CRAFT



SAN FRANCISCO
CALIFORNIA

Look What's Coming!

Early Issues Will Contain:

Mr. Howard Webster of Webster Bros., Chicago, promises an account of his talk at Kansas City on Coloring Photographs.

Mr. Keedy of Keedy Studio, Chicago, promises a sketch of his talk at Kansas City on Illustrative Commercial Art.

Portrait Talks by Mr. Will H. Towles of Washington, D. C.

Photographing Automobiles by Mr. W. E. Dobbs—a demonstration given at the Kansas City Convention.

Notes on the Carbro Process for the professional.

A Concentrated One-Solution Developer and a Test for Fixing for the Amateur.

My De Luxe Enlarger, by Mr. F. Belmont Odell—you can make one.

Camera Craft Publishing Co.

Claus Spreckels Bldg., San Francisco, Cal.



CAMERA CRAFT

A Photographic Monthly

Entered at the Postoffice in San Francisco as Second-Class Matter. Copyrighted, 1922, by Camera Craft Publishing Co.

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Subscription Price, \$1.50

Canada, \$1.75

Foreign, \$2.00

Camera Craft Publishing Company, Claus Spreckels Building,
San Francisco, California.

FOREIGN AGENTS

Australia }	Harringtons, Ltd., Sydney
England }	Kodak, Australasia, Ltd., Sydney
Malta }	Francis Collas, 3 Wine Office Court, Fleet Street, London, E. C.
New Zealand }	Do Agius Catania, 41, Sda. Reale, Valletta
Philippine Islands }	Richard Hill, Matlock House, Devonport, Auckland
Japan }	Waterworths Limited, 58 Queen St., Auckland
China }	Waterworth's Limited, 286 Lambton Quay, Wellington
Scotland }	F. O. Roberts, Manila
	K. Kimbel, Yokohama
	Squires, Bingham & Co., Shanghai
	Robert Ballantine, 103½ St. Vincent St., Glasgow

Heliar Lenses

∴ AT ∴

Pre-War Prices

As usual we are the first to announce this reduction

GET IN TOUCH WITH US
IMMEDIATELY

Pre-War Prices (Incl. War Tax)

8¼-in.....\$ 74.80	14- in.....\$165.00
9½-in..... 88.00	16½-in..... 220.00
11¾-in..... 127.60	19- in..... 264.00

Charles G. Willoughby, Inc.

110 W. 32d Street
New York City

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FOR

WHITE LIGHT DEVELOPMENT

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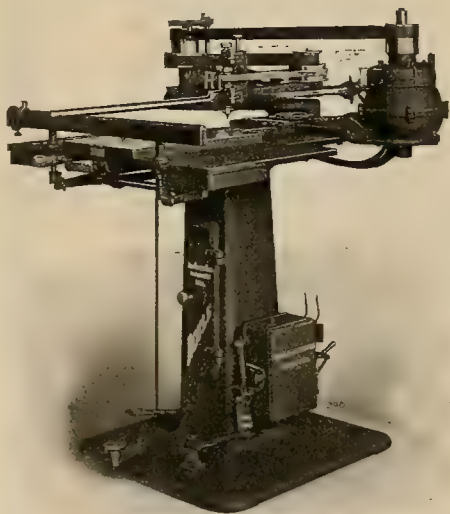
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at your dealer \$.50
by parcel post \$.65

JOHN G. MARSHALL

1752 Atlantic Ave.

Brooklyn, N. Y.

COMMERCIAL ILLUSTRATING



In preparing photographs for illustrating purposes, many of the principal operations in finishing the photo-etched plate are done on the Royle Engravers' Machines. Wherever engraving is practiced, these machines noticeably predominate and have a large preference.

Write for printed matter

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YOUNG AMERICA
By O. C. CONKLING
(Sailor Boy Picture)

CAMERA



CRAFT

A PHOTOGRAPHIC MONTHLY

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II. The Kansas City Convention P. A. of A.

MR. O. C. CONKLING'S PORTRAIT DEMONSTRATION

By Edgar Felloes



With Frontispiece and Illustrations by O. C. Conkling

According to the Convention program we were to have, on the second day at the Century Theatre, a demonstration of child photography by O. C. Conkling of St. Louis.

The theatre itself was nearly full when we entered at 9:15 a. m. and everybody was singing, led by Lucille Haliday Swain, of Minneapolis. All had been given to understand it was unlucky not to sing with Lucille and all were doing their level best. It is remarkable what a livening effect a few choruses will have on a crowd, it puts every one in good humor, and be it known to you, if you can only sing at 9:15 a. m., you are decidedly fit for the day.

At 9:30, the stage was prepared for this demonstration. One man took his place at the camera. Another's duty was to keep the camera man supplied with loaded plateholders. And another probably working from the darkroom had to keep these holders filled.

The Butler-Sanker Company had a representative to manipulate their light and this gave a beautifully even illumination; then Beattie made his

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appearance on the stage with his Hi-Lite tucked under his arm which he immediately proceeded to set up. We never saw so many huskies assembled to photograph a "Wee Tot," and this was not all by any means, for after a short pause in came Conkling, it appeared nicely arranged and we appreciated his entre, the effect was good.

Conkling is a tall, a very quiet man. One instinctively experiences confidence in him and this no doubt has contributed largely to his success. He approached the foot-lights and said two, perhaps three words which we were unable to catch, then he went to the camera and unwound the longest piece of hose we had ever seen outside of a garden, and this hose had the largest pear shaped thing growing from one end of it, while the other end was anchored to the camera. It was a tame hose too, it followed its master everywhere, from one end of the stage to the other and it never tangled his legs either.

The audience was certainly interested, it was quiet, expectant. And our eyes were intently fixed on the wings to judge of the Tot's impressions, for we felt sure he or she would be about as happy as anyone entering an operating room.

There was a little flutter, and we whispered "Here comes the poor Kid." Then Conkling stepped to the wings, the obedient hose following and he led a beautiful boy on the stage. The little chap was timid, he had been whimpering, but we wish our readers to note the expression on this child's face, as shown in our frontispiece, "Young America"; it was made within three minutes after the little one had set foot on the stage. That was quick work, you will say—well, it was, and Conkling did it with a mascot carried in his pocket, just a rubber ball, which he tried to balance on his head. It looked ridiculous, it was ridiculous, and the boy thought so and smiled. At that instant Conkling gave the pear such a vicious squeeze we expected to see the juice run out of it, and some professionals sitting near us remarked the click of that shutter sounded like a twenty-fifth of a second exposure.

For the benefit of amateurs, we will digress a moment to speak of the light. When the principal or broad light was thrown on the subject there appeared to be plenty of it, though somewhat flat. But when the spot light was added the improvement was very apparent. What appeared a light before became a half light now through the concentrated illumination, and it made all the difference in the world. The broad light then became well-illuminated half-tones and shadows, the spot light supplying the high-lights. By this means the exposures were made rapidly, and this is of great importance in child portraiture.

By exercising a little thought the amateur home-portraitist should be able to avail himself of the idea. There is no need to dismiss the subject from his mind because he does not possess a Butler-Sanker light or a Beattie Hi-Lite. We would suggest that the amateur try a flash sheet or flash powder ignited behind a white screen, placed not too close to the sub-

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"DICK"

on Hammer Dry Plate

ject, which should be posed near a screened window. If this screen is partially drawn, permitting the "raw light" to fall on the model in such a way to supply the high lights, the screened flash will take care of the well-illuminated shadows. If the exposure is now made we shall find the resultant negative a very different thing to the once familiar chalky-light portrait with inky-black shadows, or, on the other hand, that type of home portrait with a wholly white face almost devoid of modeling.

We presume it will hardly be necessary to advise those photographers desirous of experimenting along these lines that they should confine them-



"JACKIE"

on Central Dry Plate

selves to adult portraiture to begin with. Until they are perfectly familiar with the varied results to be secured, it would be useless to go on. The point that needs careful study is the distance of the flash from the shadow side of the subject, the quantity of powder to be used, and also the quantity of daylight permitted through the partially screened window. We might add, for this window screening we have found cheese-cloth of a pink color very suitable, and this may be hung on a cord to slide easily.

We will resume our story of Mr. Conkling. We noticed in the handling of his young subjects he showed great patience; he knelt beside them, spoke to them quietly, even confidentially; at the same time it struck us the child instinctively knew "who was boss." The why for the long rubber

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THE BEAUTY OF CHILDHOOD

on Eastman Portrait Film

tube or hose became very apparent, as he worked some distance from the camera, and very rapidly. It was up to the camera man to see to it there was always a plate ready.

This demonstration of Mr. Conkling's was as enjoyable and instructive as anything we saw at the convention, and the smooth way in which it ran, with the very able assistance of the other gentlemen on the stage, quite impressed us.

We asked Mr. Conkling to write us something on "Do's" and "Don'ts" to add interest to this report, and we believe the following from him will be well worth reading, as it is the experience of a successful man:—

In reply to your request for some notes on "What parents should do with the youngsters," and "What parents should not do."

My experience is, that the "do's" for some parents are the "don'ts" for others. For instance, I do not mind if the mother, father, grandparents, aunts and uncles of some babies all come in my skylight-room to help photograph baby, as in many cases they are a great help in getting the desired expression. Then too, if they all have had a finger in the "pie" the chances are a better order. On the other hand, there are cases where I can handle a child much better if they will all keep out of the skylight-room.



"AHOY!"

on Seed Dry Plate

I have never been able to figure any fast rules in "do's" and "don'ts" for parents except in dress. Light color or white is generally best, and not too much underwear—especially with small babies up to a year or two of age. Some of these youngsters have so much on them that they look like a little head, hands and toes sticking out of a bunch of clothes. I would rather have a simple dress only, on babies of this age so that the little head and neck, and dimpled arms and legs are well exposed. Nude babies are always beautiful.

Suppose I give you some "do's" and "don'ts" for photographing babies and children, rather than what parents should or should not do. They

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THE BALLOON

on Eastman Portrait Film

generally do as they wish anyway, they have a right to, as it is their money they are spending with us—and their money we are after, providing we are looking after the financial end of our business.

I do not attempt to get acquainted with my little subjects before beginning to photograph them. When I am ready to make pictures I begin getting acquainted, and snap every pose and expression that looks good to me. After we are acquainted we are through, as it is then generally rather hard to get a child to do as one wants them to do.

I never speak falsely to a child as: "The birdie is going to hop out of the camera." There is no such thing around my studio. I might say that

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I am going to show them an elephant, duck, dog or any of the numerous small toys we keep handy to the camera. We show what we say we will, generally by placing the toy on our head, dropping it and catching it, which in many cases produces the smile that pleases the parents.

Child expressions are easily controlled with the operators own facial expressions, and his conversation with his little subjects. The only expression I have never been able to induce on a child is a yawn though I have tried it often. Sometimes I believe that getting expression and poses of children is hypnotic. Here is an illustration. Most mothers want standing pictures of little children. We all know how hard it is to get them to stand in one place long enough to get the focus and make a snap. If one will place a child on a spot they desire it to stand and lightly hold the little feet, say to the feet that they are not move, and say to the little subject that their feet are not to move, it is surprising to see how many of them will become glued to the spot. I have had some to loose their equilibrium and begin tottering. Of course, not a very large percentage of children are susceptible to this mental suggestion.

At the convention after my demonstration a number of photographers asked me what I said to my subject to get them to smile. I did not know, as I only hold a conversation with a child that is not beyond the understanding of their little minds, and the topic of that conversation is anything that happens to come up at that particular time.

With the little boy that you are using for your frontispiece, when I brought him on the stage. almost crying, he discovered a spot of paint chipped off the toy boat. We got into a conversation about it at once and instead of continuing his cry he forgot and began to laugh again. Children old enough to understand are easy to induce the desired expressions, but those not old enough—to understand—that is the job. Laughs on three or six month babies are iduced in the same manner that you make your own babies laugh or smile at your own home.



COOL OUTDOORS

Pictorial Interpretation

By Johan Hagemeyer



With Illustrations by the Author

There are a good many workers in Pictorial Photography, men and women, who profess to be pictorialists; but how many are there who actually make pictures, pictures in the real sense of the word, not mere records or copies? How many are there, who give us in their work more than just what was before them in a literal way? How many are there that put something of themselves in their work making it part of themselves? Instead of this we see a repetition of what others have done and sometimes done better.



MIGRANTS

Wanamaker, and London Salons, 1921



PEDESTRIANS

Royal, London, 1921

After all, it is that "seeing" in picture making, plus that indefinable something that is in every individual and which must be brought out that makes the result worthwhile. The individual touch, the idea or intent must be in everything we create, and this is noticeable in paintings, etchings or music in much greater degree than in the photographic picture. It is evident in every national Exhibition of Pictorial Photography of today that there is little or no individuality shown; on the contrary, the subject-matter of the majority of pictures runs about in the same style or channel, as though one certain standard was adopted (a rather mediocre one at that) and merely presenting a sort of variation on some familiar theme. Fundamentally the idea of someone else, showing an almost total lack of imagination on the part of the borrower. The logical result must be an impersonal, a sort of intermediate or hybrid product.

PICTORIAL INTERPRETATION



THE JAW

Seattle, 1921

A picture in order to deserve that name must be a product of art, a product of an impulse to create, and creating is giving out something of yourself, so that product must of necessity show the essence of the producer, his or her individuality, imagination, etc.

Now, can we say that this is the case when we go over the work of the majority of Pictorialists (Photographic picture-makers)? No, all we can observe is that which I have already stated—a decided similarity of idea—or rather a lack of any original idea. And if that is the case, then I ask myself why make them in the first place, but if that is unavoidable why call them pictures and present them as such to the public? It is for this reason,



WORK

a lack of the art-impulse in the bulk of photographic pictures that photography is still treated as something very much inferior to any of the other arts, it is in fact often referred to as some kind of a misfit or abomination in art, if not wholly ignored.

So, let us find ourselves, let us make the camera the medium of our own ideas, of imagination, of vision, of feeling, of inner relation upon things in the outer world. Let us give expression to the impulse within, create and not speak in the manner of phonographs, be a mere echo or imitate. So then, let us stop manufacturing and boasting quantity, but begin creating and aiming for quality. Let the output be few, but worth the putting out. Set your own personal standard. Do not follow, try and lead. Make "Pic-

PICTORIAL INTERPRETATION



PORTRAIT OF MY BROTHER

Oakland Salon, 1921

torial Photography” stand on its own feet and worthy of its first name—and thus lead it to a greater future.

AN APPRECIATION

It is only within recent years that photography has been elevated from a commonplace pastime and a second-rate profession to a secure place among the fine arts.

Its development and true mission as an independent interpretive art is in fact in the eyes of the general public energetically encouraged by the average tradesman-photographer) practically unknown.

This is no doubt inevitable since artistic perception has not yet become common property, and therein lies the difficulty with which the artist photographer is confronted.

The public, generally speaking, demands in the first instance “a good

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likeness," (which is to say a flatteringly mediocre one), at the expense of artistic merit which it does not understand. The artist, on the other hand, is driven by every impulse towards the creation of a picture of sound artistic worth at the expense of mere pretty—pretty and imitative confectionery.

It is for our aspiring educators, to decide just how long it will take to awaken the professedly slumbering potentialities of our present apathetic majority to a keen realization of the aims of our artists in the photographic field. As yet the display of the discriminative ardor is scarcely overpowering, although it must be admitted that there is a bewildering supply of ambitious photographic mechanics. Under these circumstances the handful of men who have devoted their efforts towards securing for photography authoritative recognition should evoke the active support of those interested in the furthering of sincere artistic endeavor from whatever source it may be derived.

At all events to these few men belong the honor and credit of having accomplished for their medium what has been done in the past, for instance, by Manet and Monet for Impressionism.

It is in this slender group of pioneers that Johan Hagemeyer belongs. He is a Hollander of keen artistic sensibility, whose early environment in a land of singular limpidity of atmosphere has brought to his work a certain caressing subtlety. His photographs bear the impress of an independent personality fortified by the confidence which only genuine creative resource can give, and whatever he touches is characterized by a certain lyrical delicacy of feeling or bold impressionism.

There is magic in the moist pearly quality of his landscapes and rare sensitiveness. His portraits are not without dramatic power. In short, Mr. Hagemeyer is an artist of distinction whose efforts merit serious attention.

FRANK N. GREGORY,
of San Francisco Chronicle.

Forthcoming Exhibitions

Place.	Date.	For Information Address:
Toronto Camera Club. Closing date for prints, July 29, 1922.	August 26 to September 9.	J. H. Mackay, Secretary, 2 Gould street, Toronto, Canada.
Royal Photographic Society. Close August 25, 1922.	September 18 to October 28.	The Secretary, Royal Photographic Society, 35 Russell Square, London, W. C.
Frederick and Nelson.	November 6 to 18, inclusive.	Frederick and Nelson, Seattle, Wash.
London Salon of Photography. Entries close August 30, 1922.	September 9 to October 7.	Hon. Secretary, London Salon of Photography, 5A Pall Mall E., London, S.W.

II.—Wild Life Photography

By Stanley Clisby Arthur



Former State Ornithologist of Louisiana

For those who go into the photography of wild life, especially bird life, there are certain things needed beside a photographic equipment—namely: patience and a blind.

The photographic blind I would count the most important among the wild life photographer's varied accessories, far more important than the kind of a camera or the make or speed of a lens.

It must be remembered that it is impossible to secure close-ups of birds, that is, so a 4x5 negative has an image at least one or two inches long of some small bundle of feathers, without having the lens at least within twenty-four inches, or better a foot, of a living model. Therefore, it is evident that stalking your "sitters" is impossible for no wild bird, unless it is injured, brooding its young, incubating its eggs, or caged or tethered, will allow such a near approach . . . it's a trick to do it with one of our barnyard chickens!



The "grass suit," used in stalking birds, such as geese, that cannot be successfully lured to the blinds.

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So, to see with your own eyes, at a distance of a few inches, more or less, what birds naturally look like in or about their nests, and seize upon the rare opportunities thus presented to make photographic records of their interesting home life, not merely a single picture or a chance snapshot, you must reverse the usual order of procedure and bring your model to you.



The "grass suit" blind when in crouching position. Note the "Long Tom" rectilinear ready for action.

It therefore becomes necessary to build a blind or observation tent (a "hide," as our good friends across the water call it.) One that is portable, one that can be set up easily and without undue loss of time, and one that will allow the maximum of comfort for the worker. In my work in Birddom I have used several types of blinds and about five years ago constructed one that has since met all requirements for wild life photography, not only in the lowlands of Louisiana, but deep in the Arctic wilderness of Labrador, which will be described in detail on another page.

From this blind I have photographed some of the most timid members of the avian race of America, have had some of them come so near me that they were **inside** the focus of my lens, that is, so near I could not rack out enough to get them focused sharply. From the shelter of this blind the shyest of birds have posed successfully and unsuspectingly with the camera lens not twelve inches from their keen bright eyes and they have gone about their family duties, their mating antics, their interesting home life as though their arch-enemy, Man, was miles away.

II. WILD LIFE PHOTOGRAPHY

In the photographs accompanying this chapter will be noted five methods of photographing birds in the field. First, the "grass-suit" blind and the two pictures are self-explanatory. The only successful pictures I have secured with this suit were of wild geese, flock pictures passing over



A half blind. Hurriedly made from four stakes, three gunny sacks and a few tassels of marsh grass. Successful pictures of wild ducks were made from it.

head, using a reflecting type of camera with a 15-inch lens on a 4x5 plate. The greatest limitation that this blind has is that one cannot keep perfectly still for any great length of time and the crouching position so necessary to assume, if you are to remain an imitation of a haycock, is very wearying and robs you of one of your greatest assets—patience.

Next we will consider the half-blind, as I have dubbed it. The photograph explains its construction—four stakes, three gunny sacks and a few tassels of switch cane and marsh grass with no concealment overhead. I have made successful pictures of wild ducks from the blind illustrated but was forced to remain perfectly still while the waterfowl were on the water in front of it and in range of my camera. This was not because of any noise made but the gunny sacking was not opaque and each time I would change position (it might be explained the strongest light was in back of me) the ducks could see my form move and it made them restless although it gave me countless opportunities for flight pictures. Therefore, be sure the material of your blind is opaque. The color is immaterial.

The floating blind shown in the photograph is one of the two cases in which the blind to be recommended later cannot be used advantageously—

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on the water and in a tree top. Any sort of a boat will do for the floating blind provided it is flat-bottomed. The one illustrated was used in securing home life records of herons, anhingas, roseate spoonbills, gallinules, ibis, wood storks and other birds nesting over water. The frame was of rough



Blind, partly camouflaged with marsh grass, used to secure "close ups" of ducks and geese.

pieces of board and over them were tacked broad leaves of the scrub palmetto.

At one end, where the photographing was done, a square of tan-colored tenting duck was tacked into place and in it holes and flaps for the camera were cut. The boat being placed, naturally, close to the nest under observation. A frame covered with tenting cloth would do as well and **better** than the one shown in the photograph.

The evolved type of portable blind is also illustrated. One shows it "cameraflaged" and the other exactly as it has been used for years without any pretense of disguising it.

This blind, in use, has knocked out several moth-eaten theories as to the cleverness and brain power of birds. The first thing learned was that it is not at all necessary to tie branches of trees, marsh grass, flowers and whatnot, to the blind—especially the whatnot! Nor was it necessary to have it resemble the trunk of a tree, a dead cow nor a spotted angora goat.

The next thing learned was that birds were not the astute citizens of the air I had supposed them in some particulars. The old theory, the one that I had dug out of books and had others tell me, was that if you set up a blind near a bird's nest and you went into your blind alone that the bird

II. WILD LIFE PHOTOGRAPHY

would actually see that you did not leave the observation tent and would refuse to return to its nest. Therefore, you **must** have a companion who would walk to the blind with you and when you slipped inside your companion would walk away and the bird seeing this, being unable to count(?),



Floating blind used in securing photographs of herons, gallinules and other birds that nest over water. It is simply a flat boat with crude frame on which are nailed palmetto leaves.

would return to its nest under the impression that the same number that walked up to the blind went away! Funny, eh? but, then, it has been believed for years!

There is absolutely nothing to either theory. I have set up my blind in the midst of a colony of Caspian terns, a rare shy bird, and have scarcely been able to get my cameras and self inside before the whole colony was at home again as though nothing out of the ordinary had occurred and paying not the slightest attention to the strange structure of khaki just erected in their midst.

The evolved blind, as illustrated, will do any of the work required by the wild life photographer save in aquatic and tree-top work. It fulfills the need that it must afford a perfect means of concealment; it is light, portable, easily adjusted and comfortable for the cameraman who must do long stretches of patient waiting.

It is six feet high, four by four feet square, and covered on top. The material is khaki-colored tenting and is held upright by four jointed bamboo poles. The joints are ordinary large-sized fishing pole ferules and the bamboo sections are three feet each in length and interchangeable. The

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tops of the poles have small projections that fit into four round metal openings at each top corner. From the four corners are stretched ropes that are guyed to four pins or stakes driven into the ground at proper distances, just as you would erect a tent.

When rolled up, and containing a folding camp stool, a flat-headed belt axe (useful for driving stakes and fashioning new ones when the old get lost, a matter of frequent occurrence), the stakes, the disjointed bamboo uprights and the guy ropes, you will have a compact bundle weighing about eight pounds, three and a half feet in length, and securely held together with shawl straps and handle, a roll that can be carried distances without discomfort.

Erected and inside one is absolutely hid and you have attained that which is chiefly needed—absolute concealment. The birds quickly become accustomed to many strange objects and the fact that your blind has been erected on Mrs. Robin's front door step is not going to concern her for more than a minute or two. What she **will** fear will be strange noises and strange movements. Objects at rest, regardless of form or color, are disregarded by the denizens of the air. What they do fear are strange objects **in motion**.

In erecting the blind, and it can be done in five minutes, it will be well to find the exact places where your model will be sure to be; a nest with eggs or young, for instance; a baited piece of ground or marsh, or favorite natural feeding spot. Take note of your light, that is its direction, take your camera and focus on the nest or baited area, and note just about where you will want your instrument to secure the proper sized image, and erect your blind with this distance in mind. If it is a nest on a bough or horizontal limb, be sure to photograph parallel with the nesting bough. If it is on the ground remember that the sun will throw a shadow of your blind **somewhere** so arrange your site accordingly.

If you are working with a lens of 6½-inch focus and want to secure the image of a bird the size of a blackbird on a 4x5 negative, the lens of your camera should be about 22 or 24 inches from the nest. Then if you want a larger image and have a convertible lens, unscrew one combination, thus doubling your image, and secure a close-up that would delight the heart of a movie drama.

The photographing is done through the sides of the blind. To do this properly it is best to cut openings on two sides of a triangle so that the V-shaped flap can be pinned up when in use and the lens thrust through the port. A few horizontal slits will prove useful in pointing your lens from left to right if your camera is on a tripod and you do not want to move the tripod. Tripods are used with great ease inside the blind and in the end the photograph taken from a stand is superior to any other for slow exposures are possible with small openings and the result is a valuable gain in definition.

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But above all things do not fail to include in your blind a folding camp-stool. It is the greatest boon to bird photographers since the discovery of dry plates.

Working from the blind the reflecting type of camera will take first place in usefulness. A long bellows camera with an unsymmetrical convert-



The evolved type of photographic blind that is used for all sorts of concealment work. Use has demonstrated that a plain blind of tan color answers all requirements of wild life photography.

able doublet on a tripod will in many instances secure negatives even the highly prized graflex will not get. Working as one must with the lens fixed at a small opening in the wall of the blind, a back-focusing camera has an advantage over the other or front focusing types.

Secure in your place of concealment, seated on your folding stool, with your camera focused on the spot you want to photograph your "prey" all that is necessary is to wait for a favorable moment to make the exposure. So with your eye at a peep-hole watching your subject instead of being fixed in the hood of a graflex, sometimes better **pictures** are secured.

The blind described is roomy, I have worked a motion picture camera, a 5x7 stand camera (using the movie tripod), a 4x5 reflecting and a vest pocket camera from it without too much trouble, and this did not include my camera cases, water bottle or my alarm clock, this last a necessity for the movie operator, which will be explained in the chapter on motion pictures of wild life.

Therefore, if you go hunting bird life with a camera, build yourself a blind. The use of natural blinds is not advocated at all. They are difficult to construct, they do not wholly conceal, the leaves and branches are continually obtrusive showing in the resultant picture as black- out-of-focus splotches.



Photo by G. Allen Young

LITTLE TEACHER

Granny, when I'm standing in this corner
by the stair,
Talking softly to my dollies in a row,
If you only would keep quiet and forget
that we are there,
You would make it all so easy, don't you
know?

For Granny, I'm a teacher and my dollies
are my classes
And I must treat them strictly so they'll
mind me,
But when you call out, "Baby, run and get
my stronger glasses!"
Can't you see the naughty faces that
those pupils make ahind me?

Florence Presley.

Mission San Jose

By G. K. Hays



With Illustrations by the Author

"There is a temple in ruin stands,
Fashion'd by long forgotten hands."

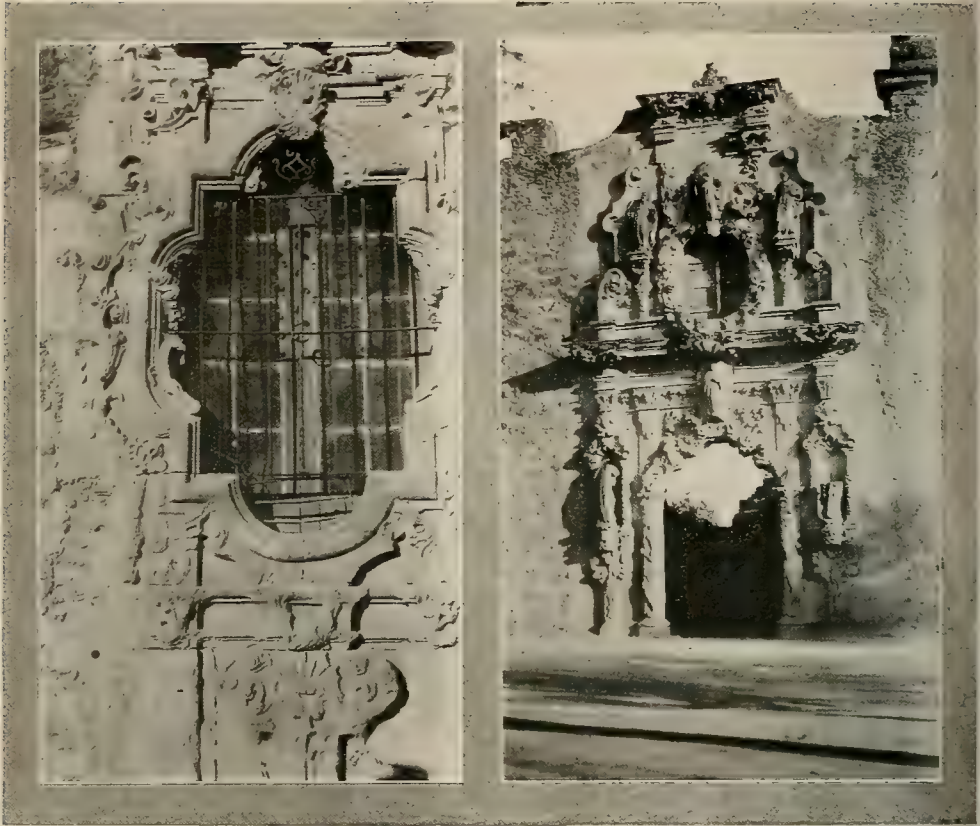
Something more than fifty years prior to the signing of the Declaration of Independence, or about two hundred years ago, there was being built in America,—known to us as Southwest Texas,—a number of missions by Spanish missionaries.

These missions were established in regions near San Antonio, a very small outpost in those days. The structures were to serve as fortress as well as church, made necessary as means of protection against the many bands of Indians roaming the plains country at that time.

The most interesting among these old structures is that of San Jose founded by the Franciscan Friars, and completed in 1720, and considered one of the largest and most beautiful Spanish missions in America.



THE OLD MISSION BUILDING



AN HISTORICAL WINDOW

THE MISSION GATEWAY

We are told that Indian converts transported on their backs, over a wide range of territory, much of the stone used in construction of this mission. There is still to be seen in the mission a number of paintings and statues sent to America by the King of Spain and transported safely through the wilderness by the old padres. The main doorway to this building presents a very fine example of ornamental carved work around the opening,—perhaps the finest piece of work along this line to be found among any of the old missions of that period.

There is also a well preserved window showing a very fine piece of iron grill work, when we consider there were no rivets used in its construction. Instead of riveting the ornamental parts to the pickets, the iron is split and the thinner portions bent back and fashioned into ornamental curved designs,—a fitting memorial to the workman ship of the padres of that day. It is said that a French architect came all the way to this mission that he might have the opportunity for inspecting this window for the purpose of carrying out the same effect in his plans for a French church.

MISSION SAN JOSE



OLD MISSION WALL



ANOTHER VIEW, MISSION BUILDING

In the old building there is still to be seen a most primitive style of stairway in the form of a huge timber with notches hewed out for stepping places and leading to the bell tower above. San Jose attracts many hundred tourists every year, and is within easy reach out of San Antonio on a most excellent concrete highway, affording the traveler a comfortable trip with small expense.

The camera tourist will find special interest in and around this old building. There are many other points of interest along the way including the old mission, Conception, which was built in 1716 and is in a well preserved state. This trip requires about four hours from start to return to San Antonio. The traveler using a camera should select the afternoon for making negatives, in order to obtain the best lighting effects.

Life without Industry is guilt. Industry without Art is brutality.

—John Ruskin.



THE CLOISTERS, SAN JOSE MISSION

Metol Poisoning

Note: We trust that readers of Camera Craft will not misunderstand our motives in publishing the various treatments for Metol poisoning. We would be very sorry, indeed, if these contributions from our readers should be interpreted as a "knock" for this valuable developer which has undeniable merits. We know that Metol has been used for years by many workers without ill effects. There are some, however, who are affected by this salt, for reasons which we are unable to explain and it is for their benefit these formulas are given.—E. F.

In the May number of Camera Craft I saw an article on Metol Poisoning and as I have suffered for several years and finally found a remedy I send it to you for the benefit of others who may be troubled in the same way: Put 40 minims of muriatic acid in one quart of water and before developing place hands in solution for two or three seconds and during development do the same every half hour or hour and no bad effects will be felt.

I was bothered for several years and tried every thing but could find no relief. I used this for about two years and stopped for a time but the trouble came back and I used it again for as much longer and stopped again and have used nothing for a year or more and have no trouble whatever with metol poisoning.

Should you consider this worth publishing you are welcome to do so as it may help others in the same fix as I was.—M. G. Tripp.

Hanging Salon Prints

By Sigismund Blumann.



With Illustrated Examples

[Note].—The writer's name is put at the head merely as a matter of form, and he is entitled only to the secretarial work, that of expressing the ideas of another. Those ideas are to be credited to Mr. Nilson Laurvick, Curator of the Museum of Fine Arts, San Francisco, and Dr. Percy Neymann, Ph.D., Secretary of the Pictorial Photographic Society of the same city.—S.B.

The Photographic Salon just over and remembered with pride by all concerned as one of the largest and uniformly best of years offered a lesson which, though apart from the artistry and the pictures, bears upon both. It regards the mounting, or, rather, it recommends that prints be submitted with plain narrow borders, that they may be tacked to the walls under glass.



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What was observed at the San Francisco Salon, and is here set down, applies to preceding exhibitions. The general aspect was heterogeneous, motley, and considerably diluted and cheapened by a mass of vari-colored mount paper. For every square inch of picture there was almost an equal expanse of paper. Sometimes it was necessary to overlap the mounts, which hurt the senses and detracted from the singleness of vision and fuller appreciation. Furthermore, the carefully neutral tinted wall backing, made to average well with almost any tone in the print, did not harmonize with the off-shade of the mount.

But most prominently the effect was of an exhibit of pictures and paper stock, one vieing with the other in the subconscious observation. Now it would seem as if exhibitors would welcome a rule insisting on the prints being submitted with a narrow border, not over half an inch in width. Tacked to a properly tinted wall, and under plate glass, a richness is lent to the picture that enhances its beauty and worth, and the general effect is immeasurably better.

The suggestion of Mr. Laurvick was reduced to experiment in reality by Dr. Percy Neymann, and the reproductions herewith carry their own message. If all Salon committees can be induced to co-operate in insisting on this form of presentation, and will so state on their entry blanks, it will take only a short time to make it a custom. Working as it does for the welfare of photography, the artist, and the exhibition, it will be a good custom.

Photographing Windows

I have often heard amateur photographers complain that when they took interior pictures, the blank space left by the drawn shades greatly marred their finished product. The following, though not a new idea, will be useful to many photographers who are ignorant of the method.

We will say, for example, that it is a bright day outside and that the room to be photographed has four windows. If two of the windows come within the line of vision of the lens, the operator would, of course, draw the shades of those two windows and time his exposure accordingly. If the shades were not light-proof he would hang a dark cloth over them.

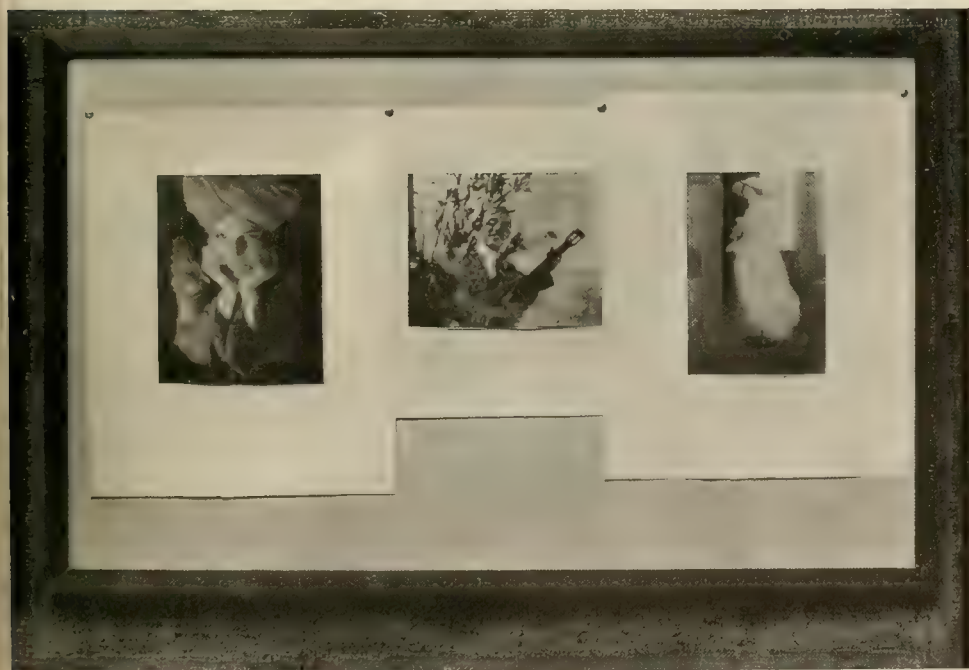
Now for the idea, the photographer should time his exposure one-fiftieth or one-twenty-fifth of a second less. Then, after completing his exposure and without moving the camera, he should raise the shades and take a snap shot using the same diaphragm opening he would use if the camera were on the window-sill instead of in the room.

When the plate or film is developed, instead of there being a blank showing in place of the window, a view of the garden or other exterior will take its place.—Andrew L. Stone, Jr.

HANGING SALON PRINTS



A SUGGESTED FORM OF MOUNT



AN EXAMPLE OF OVER WIDE MOUNT

OUR WILD FLOWERS

Kindly Contributed by Our Readers

XVII. THE PASQUE FLOWER

(*Pulsatilla patens*, L., Mill)

Flourishing in dry soil and on prairie lands, blossoming through March and April, ranging from Illinois to the Rocky Mountains and from Canada to Texas, the pasque flower, elected queen of flowerland by the legislature of South Dakota, need never fear to stand in any flower company, however distinguished, however beautiful, however charming.



With the first warm sunshine of spring the pasque flower lends its soft purplish hues to the landscape. Its leaves are furry, the result of its unconscious to protect itself from pilfering ants and other creeping insects that the children have come to call it the "gosling plant." If its lovely flowers gladden the hills while ungenial winter wanes, its fruiting period also has beauty to offer. A head of silky seedlets with their dainty plumes leads many people to call it the ground clematis.

Photo by C. H. Helmbrecht.
—National Geographic Magazine.

A hobby is a well directed form of enthusiasm, well developed through the pure joy of doing. Make your business your hobby. Bring to it a fresh mind, an enthusiasm, and you will be surprised at the ease with which results can be accomplished.—Service.

CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

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No. 8

To Our Readers

In this number of Camera Craft, under the department "The Amateur and His Troubles," we publish the Difficulties of Photography in Hot Climates and also a second article entitled Films in Hot and Damp Climates. About this time of the year we receive several enquiries from our friends, who complain of failures directly attributable to the heat, and we wish to draw the attention of these readers to this important subject.

With regard to the temperature of solutions it ought not to be necessary to remind our correspondents that wonders can be accomplished with a little ice, but it may so happen that ice is not always procurable just at the time when needed. Here is a dodge well worth remembering, and one we only learned the other day.

He was a visitor but recently returned from Hawaii, where he had been engaged in photographic work for some years. We inquired if he had not experienced much trouble from the heat with regard to photography. "Not particularly," he replied. "I used ice when I could get it."

"And what did you do when there was no ice handy?" we queried.

Our visitor looked up, amused, then added, "I use Hypo."

A great truth dawned on us; the temperature always falls while hypo dissolves. Numbers of us have known that for years, but how many have used that knowledge to a practical end?

The method of working is this: Place the graduate of developer or other solution to be cooled in a suitable container. In this container and surrounding the graduate, put hypo crystals; then add sufficient water to the hypo to dissolve these crystals. It stands to reason in a given time the liquid in the graduate will fall to the same temperature as the hypo solution surrounding it. A drop of about 10 degrees.

This hypo solution may later be used in the fixing bath by diluting it. The most convenient way of determining the working strength of a hypo bath is with an hydrometer, but if we do not possess such an instrument, it would be wise to know the quantity of hypo crystals and the amount of water added; we can later adjust the proportions with confidence to the necessary strength required for the fixing bath. We mention this, as an over strong hypo bath retards the fixation of the negative, also, an over strong hypo bath is one of the causes of blisters in our prints.

Another caution; wipe the graduate before pouring out its contents.—
E. F.

ART AND THE CRAFTS

A Department Devoted to the Encouragement of a Closer Relationship
Between Photography and the Fine Arts.

Photographing Germany

Notes by the Editor

It is one of the most unfortunate circumstances of war that it not only destroys property and men, but it destroys values. Sciences and Art are supposed to be international, as also its votaries. But they are not. Stupid as it is to close our ears to great music, it is idiotic to close our minds to the growth of knowledge; and yet that is what has been largely done. Long after peace, German medical news had no place in American medical journals, and in photographic literature it is still the same. This has been due partly to the interruption of exchanges between journals; but, be the reasons what they may, your editor is out to see and report, and offers a few preliminary notes to more definite statements later.

It is thirty years since I last walked the streets of Hamburg, a long period in American Civic growth, but a trifle in the twelve hundred years since Charlemagne gave this city a charter. Now, what did I see? First let me state what I did not see. No telephone posts or wires and no street advertising. What this means to the photographer seeking the pictorial is immense. How many lovely views do we have to pass even in the country because the wires form the foreground and "You can't burst 'em" the distance. So then there is no advertising in Germany? Plenty—in the newspapers, and theatre and concert announcements are affixed to specially built towers at certain street corners. They never interfere with the camera. Here in this great city, three times as large as San Francisco, the view to the camera man is always unobstructed and most fortunate where it is so, for the beauties of Hamburg are cameo like. Single buildings of fine proportions, charming old houses from the far distant path, and

mysterious dark waterways that in the good old times served alike for commerce and war. But of these things later; I am now only speaking of general impressions. Hamburg is the third largest port in Europe, and before the war its proportionately richest city. Its seaborne commerce, great from the middle ages, became enormous with the growth of the Empire, and then with the war fell and fell until, with the loss of the great mercantile fleet, it might well be imagined that, like Venice, Hamburg would end as a great center. It was with some such expectation that I arrived, and the first experience was to find that I could not get rooms in an hotel and must content myself with second class lodging in a back street. Hamburg was full. It was full of quite busy, joyous looking people, and when I took a stroll in the evening and turned into some of its enumerable cafes and resorts, the beer and the food and the music were as good as they ever were. A week has gone by, and I have had an opportunity to look closely at things and, though there are two sides to German prosperity, there is only one side to German activity, and that is A plus. This activity has produced everything that man can need. In no American town can you see so many shops filled with all kinds of desirable things. Endless book stores, fine pictures, every kind of personal convenience. It is astonishing. Also, high class operas, concerts and plays, all are there for a little, very little money, but—and here is the rub—the average German has not got the money. He works like the mischief and makes everything, and then the other fellows come in and buy it at profit that just about pays the taxes that mostly go abroad. Probably nowhere in the world are real conditions more completely hidden by superficial appearances than here in Germany. You walk on the

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A factory of ornamental brick, looks like a government building

beautiful Alster embankment full of well dressed, well fed people. They all speak German. You say, "What prosperity, how rich Germany must still be." But—that lady in magnificent furs is staying at the Atlantic Hotel. Her race is German, her home New York; that overdressed man, a *schieber*—one who in war times smuggled food to the rich at the general expense. Look again. Among this crowd, lost in their brilliance, is a number, nay a majority, of men and women dressed in clothes, scrupulous in tidiness and care, but patched, darned and of assorted material, the

survivals of pre-war times. I saw a man of distinguished features, seemingly well dressed in a long overcoat. Chance caused him to unbutton it; beneath was the last vestiges of a stained and worn suit. On a side street an old man, dressed with equal care, looks anxiously around and then, stepping into the roadway, filled his pockets with the fragments of coal that had fallen from a passing wagon. It is a picture of middle class prosperity.

One more example—the young folks make an excellent impression, happy, healthy faces are everywhere, and race sui-



This gives some idea of the enormous mass of the Bismark Statue

cide is afar off; but again it is easy to be misled by dominant impressions. I visited the domestic instruction school where the girls from fourteen to sixteen are taught the duties of cooking and housekeeping. The North German girl of this age is a fine specimen of humanity, and thirty per cent were certainly such; but there was another group who seemingly were from eight to nine years of age, old faces on small undeveloped bodies. I spoke with the very intelligent lady in charge of the institution, and she told me that they were those who had not been able to make good

the starvation of the war, nor would they ever do so. I counted them in the different class rooms, they amounted to about one-third of the scholars. For months after the fighting had ceased they had lived on turnips, while the diplomats at Versailles were drafting a peace that has kept the world at war and is likely to lead to worse. But I am getting away from photography. Hamburg is one of the most intimate mixtures of the old and new that is to be found in Europe. At one time there was an old city of gable houses meeting above the streets for the better

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A street in the old city of Hamburg

distribution of boiling water and melted lead on marauding neighbors, but now a modern city of great beauty, so that, in the opinion of many, Hamburg counts as the most beautiful city in Germany. The new city slowly eats up the old city but, with great wisdom, the architects have followed the old lines, and the blend be-

comes often perfect. One of the things we may learn from Germany is how to combine industry and beauty.

The few accompanying pictures will give some idea of the results. The next letter shall be purely photographic.

H. D'Arcy Power,
Hamburg, Germany.

Reciprocity on the part of both employer and employee will do much to keep enthusiasm at the peak.—Service.

A PHOTOGRAPHIC DIGEST

Edited by H. D'Arcy Power, M. D.

The Practical Stereo Photography of Small Objects

(Continued from July)

The vertical space or frame thus marked out has a three-fold function. It constitutes what will be called *object width*, which determines the whole width of the available space within which the object must be arranged. If the object is wider than this, only so much of it can appear in the stereo image as lies between the two verticals; if the object is to be taken as a whole, it should be considerably narrower than this, in order that it may be artistically displayed. For instance, in the first example about to be given, the *object width*, or distance between verticals is $7\frac{1}{2}$ in. For effective display the actual object, or objects, should not be more than about 5 in. wide. There will then be sufficient room in which to arrange the group in a pleasing way. Artistry in stereo work is quite as great importance as accuracy. The next function of the two verticals is that they form the plane of *object distance* on which focusing is to be done. The lens axis must be vertical to this plane, and the focusing screen must be parallel to it. The side movement of the camera between the first and second exposures must also be strictly parallel to this plane. The distance between the lens centre and the plane of the verticals is given in every case by the working formulae and will be called *object distance*. The sharply-defined images of the two verticals must appear on the focusing screen at an exact distance apart, which is also given by the formulae. This last distance will be called *print width*, and the greatest attention must be given to its accuracy, for on it the scale and distance of the stereo image will depend. This is the third function of the

verticals. The prints have only to be made by contact from the negatives, trimmed along the images of the verticals and mounted side by side with their inner edges touching.

It is important that the images of the verticals should run unbroken from top to bottom of both negatives throughout the height which will appear on the prints. No part of the object in front of the verticals must be allowed to infringe upon them in such a way that it comes between them and the lens and cuts off the view. Otherwise an effect of unreality at the edges of the image, well known to stereographers, will result. With the exception of this proviso, however, the object may be placed anywhere within the limits of sharp focus. In general, perhaps, it will be placed with one-third of its depth on the nearer side of the verticals, and the other two-thirds on the farther side; but if it is wished to concentrate attention upon the surface of the stereo image the object will be placed more or less in line with the verticals, with its main bulk behind them. It should be noted that the use of a small stop is indicated here, especially when a magnified image is to be obtained. The pupil of the eye is very small, and whatever the result of using a large stop may be it will not give a natural effect. The practical necessity of stopping down the lens before exposure in order to secure definition therefore agrees with the *a priori* requirements of theory. The object should not be placed on a wide table, but should be supported on a small block which is itself narrower than the *object width* or distance between verticals. This will make it easier to secure the unbroken image of the verticals on the negatives. A horizontal line, strongly marked on the face of the block, would be of im-

A PHOTOGRAPHIC DIGEST

mense assistance in the proper trimming of the prints, as they could be trimmed off along the image of this line, and another difficulty, familiar to stereo workers, would then be removed.

The last part of the photographer's problem is to determine what amount of shift must be given to the camera after making the first exposure, in order to secure the correct degree of perspective relief in the image. This also is given by the formulae, and will be called *lens separation*. It only remains therefore for the worker to make sure that he moves the camera through exactly this distance. If an ordinary folding camera is used it will be better to attach it squarely to a small rectangular base whose edges may serve as guides. A slip of paper longer than this base should be marked with two parallel lines drawn at *lens separation* apart. An edge of the camera base should coincide with one of these lines for the first exposure, and afterwards moved until it coincides with the second line. Two drawing pins will hold the paper in position during the operations. Great care should be taken that the camera is not moved forward or backward in the slightest degree, and that in changing the plates the adjustment between lens and focusing screen is not disturbed. In the following examples the camera extension or distance between focusing screen and lens center is given for the convenience of the worker, and assuming that the lens used is accurately $2\frac{1}{2}$ in., this will obviate a good deal of tentative focusing and movements of the camera. If a beginning is made with No. 2 example, where the extension is 3 in., and a mark is put on the focusing scale or other convenient place, the other extensions of $3\frac{1}{8}$, $3\frac{1}{2}$, and $3\frac{3}{4}$ can be readily adjusted, and the camera may simply be pushed forward towards the verticals until they are in focus. Focusing might be done on a strongly-lined screen temporarily placed in the plane of the verticals, and the supporting block with the object arranged on it afterwards put in position. A pair of compasses, with the points set at *print width* apart, should be used to test the accuracy of the distance between the images of the verticals on the

focusing screen. Until this has been satisfactorily secured no exposure should be made.

One more question. Plate or film for the negatives. Without any reference to a recent rather heated controversy, and independently of the respective merits of the two, the nature of the problem before us gives a very definite answer, and indicates that here film negatives will be most convenient, especially if positive transparencies are to be made for use in the stereoscope. Instead of trimming the prints we can then trim the negatives themselves by cutting away all the film that lies outside the images of the vertical lines. The negatives can then be placed side by side on the paper or other surface on which the positive is to be made, and a stereo print directly ready for viewing can thus be obtained by a single exposure. In order to avoid the danger of confusing the left and right negatives a slight modification of this method will be advisable, which will permanently record on each negative the side to which it belongs. For the left exposure a small card bearing the letter L should be placed close to and at the outer side of the left vertical, and removed as soon as the exposure is made. For the right exposure a similar card, marked R, should be correspondingly placed at the outside of the right vertical. There will always be plenty of room on the negatives for the images of these letters, and only one end of each negative—the end not bearing the letters—should be trimmed off. When the two trimmed edges of the negatives are placed in contact they will be in correct position for printing, and no mistake can be made. This will also obviate the necessity of handling the actual part of the negatives which is to form the prints, and the untrimmed ends will provide a convenient means of shifting the negatives into position for printing. No doubt a worker who is expert in the use of a diamond will be able to trim glass plate negatives quite as accurately as films, and if Autochrome transparencies are to be produced this will be necessary. When a series of experimental photographs is to be taken of the same group of objects, as may very usefully be done in the present

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instance, it will be well to add a distinctive number or mark of some kind under the letters L and R for each pair of exposures, in order to identify them and avoid confusion. The visual difference will sometimes be very small. Unless some precaution of this kind is taken the photographer may inadvertently find himself responsible for the mixed marriages of stereo couples that nature never intended to be joined together.

The mounting or making of the prints side by side and in contact has been assumed so far, because this is the simplest and surest road to accuracy. It is not, however, quite an ideal method, as the eye detects something like unreality where the two prints met. In mounted prints it will be better to cut an additional 1-16 in. off both edges of each print, and mount them $\frac{1}{8}$ in. apart. This will preserve the correct distance between corresponding points in the prints. Transparencies or direct prints should be covered with a mask having two openings whose width is $\frac{1}{8}$ in. less than that of the prints, and separated by a distance of $\frac{1}{8}$ in. at their inner edges.

The writer is sensible that the above working hints are only a kind of rough outline of the method by which the photographer may proceed to translate the formulae into action. They are such suggestions as naturally occur to one with considerably past experience in rigging up apparatus to suit the needs of the moment, but who is at present restricted to the use of a pen. By the time two or three experimental exposures have been made the worker will have attained facility in the routine of operations, and will be very much wiser than his present instructor. At the outset, however, the indications of procedure above given may be of use.

In the following table fractional values are expressed as decimals, and the worker is supposed to have provided himself with

a rule divided into tenths and hundredths of an inch, and with needle point dividers by which he will be able to lay off the distances accurately. Just as, when trying a new developing formula, he is careful not to allow a deliberate error of a single grain or minim to enter into his measurements, so he is expected conscientiously to aim at accuracy in the present instance, in order that the method may have fair trial.

Table giving five examples to be taken with $2\frac{1}{2}$ in. lens.

Note.—*Object width* = horizontal distance between vertical cords or wires.

Object distance = distance of the camera lens from the plane of the verticals.

Camera extension = distance between focusing screen and lens.

Print width = distance between the images of the verticals as seen on the focusing screen.

Lens separation = amount of side shift to be given to the camera.

Of these dimensions the *object distance* and the *camera extension* (which are really only given for convenience) will vary if the lens is not exactly $2\frac{1}{2}$ in. in length. The three critical dimensions which must never vary are the *object width*, *print width* and *lens separation*. For a purpose which will be explained below, two additional examples are given, Nos. 6 and 7, which require a 3 in. lens. The distance of the resulting image is given under the letter *x*, and its scale under the letter *n*. In the third example, for instance, $x=16$ and $n=2$. This means that the image will be 16 in. from the eyes, and twice natural size. The dimensions are given from left to right in the order in which they claim the attention of the worker.—H. C. Brown, B. J. of Photography.

(To be continued.)

While perseverance does not shine with the same brilliancy as does genius, it has a lasting light and will glow more steadily.—Service.

THE AMATEUR AND HIS TROUBLES

Conducted by Edgar Felloes.

Tropical Troubles

Difficulties of Photography in Hot Climates

Photography in the tropics does not present the great difficulties some text-books would have us believe, and differs only in details from ordinary mid-summer photography in England. In the tropics the great bugbear is, of course, the heat; but if plates are developed at night, or very early in the morning, very little difficulty will present itself if the temperature of the solutions is reduced, either by the use of ice, or by wrapping a wet cloth around the solution bottles and placing them in a current of air for an hour before use, keeping the cloths wet. The fixing bath should be made up just before it is wanted, and should be of the acid-alum variety. The action of dissolving the hypo reduces the temperature of this solution considerably.

After taking the plates from the fixing bath, it is well to give them a rinse and transfer them at once to a ten per cent. solution of formalin for a minute or so. The temperature of the water is generally high, but it is surprising how much heat wet plates will stand after the formalin bath. This solution also prevents running of the emulsion whilst the plates are drying. After washing, the plates should be carefully wiped with a piece of wash-leather, wetted, and then wrung dry. This will remove any surface scum along with any "tears" or globules of water. If these simple precautions are taken, the images will not melt, nor the film leave the glass.

Washing need not be prolonged to an hour; in fact, it is better to cut it down to about half. The high temperature of the water will materially assist in eliminating the hypo very rapidly, and to have the plates soaking for an hour is not only unnecessary, but risky. One of the best ways

of washing negatives, especially if the water happens to be scarce, is on the "wash and soak" principle. A series of six dishes (which need only be plate boxes given five or six coats of Brunswick black inside and out, with the bottoms inverted into the lids for stability) are filled with water, and the negatives are passed through them in the same manner that platinotype prints are fixed. The first three dishes will soon become foul, and the liquid must be poured away. The last three dishes then take their place, and the three empty ones, after being filled with clean water, are placed last in the line. By this method, allowing for a three or four minute soak, and well draining the plates between each change of water, it will be found possible to wash a dozen plates effectively in about half an hour.

In warm countries insect pests are very numerous, but the two most destructive from a photographic point of view are the "Silver Fish" and the cockroach. The latter is familiar to almost everybody. The "Silver Fish" is about a quarter of an inch long, not unlike a fish on short legs, and covered with a white silvery down similar to that on a clothes moth. Both insects have a well developed taste for photographic emulsion on plates and paper, and commence their work of destruction at the edges, and eat inwards. Negatives can generally be stored in boxes out of the way of these pests, but with prints matters are very different. They seldom, if ever, lie flat; and if a number of them lie together, there is sure to be room between them for a "Silver Fish" to work. There seems to be no remedy for the evil, except to destroy the pests whenever they are seen. The chief palliative employed is an infusion of quassia chips, into which the prints are

immersed. This renders the film distasteful to the insects for a time; but after a year or so the treatment seems to lose its potency.

In the wet season, which comes during the hottest part of the year, the atmosphere is saturated with moisture, and moisture and heat together give ideal conditions for the cultivation of "Blue Mould." All apparatus, when not in use, should be placed in a steel trunk or something similar.

Exposure troubles the tropical photographer very little; the light throughout the year is very constant except at early morning and evening. Each day breaks almost with a jerk, and closes just as suddenly. The sun shines nearly every day and all day; if it does not, rain falls at about an inch an hour, and photography is impossible. The light, generally speaking, is more actinic than in England, and one can take snapshots with apertures and speeds which would spell under-exposure in England; but, of course, one must take into account the lighting of the shadows.

In very hot weather there is often a "shimmer" on the ground owing to the heated, rarefied air rising from the hot soil, and this sometimes causes a slight distortion of the image or a blurring. The ground haze, due to the steam after rain, often gives "atmosphere" to a picture; otherwise in the clear air views have quite a cut-out appearance.

The manipulation of prints calls for no special comment, except that they should not be handled with hot fingers when wet, or some of the image is sure to come away. When thoroughly washed, the prints should be blotted off and dried as quickly as possible.

The two great difficulties in tropical photography are preventing the gelatine film from melting or warping while wet, and preventing decomposition, which in all hot countries takes place rapidly. Celluloid dishes are of no use, as during the hot weather they warp very quickly.

W. RICHARDS,

From *The Amateur Photographer*.

Films in Hot and Damp Climates

Photography in the Tropics presents difficulties which do not arise in more favoured climates. High temperature and great humidity bring with them special troubles in nearly all the stages. Unexposed film, exposed film, development, fixing, washing, and printing, each call for care. Mr. M. R. Allen, writing in "The Camera," gives a number of useful hints from which we extract what follows:

I have experienced little deterioration of unexposed film (he says). That problem can be solved by buying film sealed for tropical use. However, in travelling across the Andes, the decrease in air pressure at high altitudes caused the tubes to bulge, and a few showed evidence of having admitted air. As an additional precaution, I kept the films packed well in the center of packing boxes, surrounded with crumpled newspaper; and at convenient intervals unpacked everything for a thorough drying.

Film pack has shown less deterioration than roll film in my experience, possibly due to the intervening air spaces. Roll film seemed to improve in this respect when I had learned not to wind it too tightly after exposure.

A trouble which may puzzle the novice is that a film may become wrinkled and uneven while in the camera, due to moisture. Of course, some parts of it are then out of focus. This can be avoided only by keeping the camera well protected from moisture, especially during tropical nights.

The longer the film remains in baths near the melting-point of the gelatine the greater is the injury to it. It is important to remove it, then, at the earliest possible moment. Certain negatives, under-developed by the tank method and intensified on returning home, turned out to be among the best in printing qualities. This suggests that it may be a wise policy to expose well, to under-develop consistently, and to re-develop later when necessary. Formalin-hardened film is said to be too brittle to allow wetting again, but none of mine showed any loosening of the gelatine in the intensifier.

THE AMATEUR AND HIS TROUBLES

When working at high temperatures, the developer cannot be used for more than one or two films at most. For that reason it must be used in small quantities, and the small two powder packages made up for amateur use are a very convenient form. Having the fixer strong and fresh shortens the time the film must remain in the solutions. The washing must be reduced to a minimum when warm water is used. Rapid rinsing through several changes is imperative.

More vigilance is necessary in safeguarding the negatives after drying than with the sealed unexposed film. They must be kept dry and isolated from each other to prevent mildewing or sticking. If ten per cent. formalin is used for the last wash water, the film is hardened considerably. I have found negative albums the safest means of carrying negatives, and after all they are no more bulky than any other arrangement.

Manufacturers of film warn the user not to seal it again after exposure in the tropics. To do so would enclose a certain amount of moisture with it. They argue that it is better to ventilate it than to allow it to sweat in an airtight container.

I tried to find a satisfactory way of storing film dry by enclosing it in a dry chamber; for if the humidity and temperature are not permitted to become excessively high there is no reason why film should not enjoy as long life in the tropics as elsewhere. Temperature control has not been so difficult as might be supposed. It is mostly a matter of keeping the container in the shade. The obvious solution of the question of humidity was to enclose with the film a quantity of a deliquescent salt to absorb water. This I attempted to do with calcium chloride, but this did not succeed, due to the difficulty of drying the salt. I had about despaired of making the hermetically sealed chamber successful when a very simple solution came by chance. I had dried some old newspapers used for packing, and went to gather them just as the sun was setting. It was a region of heavy dews, and I

found the paper already damp when I picked it up. It then occurred to me that crumpled newspaper, easily dried in the sun and readily taking up moisture again, was the thing needed to complete my film-box. From that day forward there was no trouble.

The box was kept closed except near the noon hour on bright, sunny days. I never opened it at night, on cloudy days, or after recent rains, even to add films. Luckily at such times little film is ever exposed. Whenever a good drying day came I was sure to spread the open box and the crumpled paper in the sun for an hour, and the exposed films in the edge of the shade.

No detailed description of a box such as I used should be necessary, for the principle of it is clear enough, and each photographer wanting to use anything of the kind will wish to modify it to suit his own requirements. He could make it to use either crumpled paper or any other desired drying agent.

When the box has been opened after a week or so of wet weather, the paper still felt dry and crisp to the touch. My best negatives are those which were developed at home in a darkroom from eight rolls and film packs that had been exposed four to six weeks before in the Upper Amazon country. They arrived still fairly free from humidity after a fortnight on the Amazon and an equal period at sea, with no perceptible defects due to dampness. At first I carried my negative albums in other containers. Some negatives were placed back to back by twos in the pockets of the albums. Whenever baggage was opened and spread out to dry the albums were aired as well. But the negatives were sure to be damp and sticking together more or less. Then I began keeping the albums also in the closed box. They never again felt soft and humid, and there was no further sticking. It is reasonable to suppose that the undeveloped exposed film in the box in the same way was much drier than it would have been outside.—The Amateur Photographer.

FOR THE PROFESSIONAL

In the Interests of Commercial and Portrait Photographers.

Electric Light in Portraiture

The last occasion upon which I had the privilege of addressing you upon the subject of artificial lighting in photography was at the second Congress held at the Horticultural Hall on May 16, 1911, a report of which the "British Journal of Photography" was good enough to give in extenso a few days afterwards.

The methods we had in use up to that period (eleven years ago) were, the open carbon arc (improved from Van der Weyde's time by running four pairs in series), the enclosed arc, the ordinary carbon filament lamp brought to high incandescence for a brief period by cutting out a resistance in the circuit, known as Adamson's lamp, and, lastly, the "Cooper Hewitt" Mercury vapour lamp, with various modifications, such as the "Silica" lamp of the Westinghouse Co. Now some of these systems are still very much in use, but in the exceedingly limited time available this evening I do not propose to touch on their special advantages for certain definite purposes—as they are pretty generally recognized.

The Half-Watt or Gas Filled Lamp

In the year after that second Congress of ours, an event of far-reaching importance to photographers occurred with the introduction of what is known as the $\frac{1}{2}$ -watt lamp, which, in 1913, was already installed in a few studios. As many of you know, these lamps are filled with an inert gas, those of large wattage with nitrogen, and the smaller sizes with argon. During the war the British makers were not allowed to fix up the elaborate plant necessary for the manufacture of this gas, and many of us were forced to obtain lamps of high actinism "made in Holland." Happily, now, the British product is unequalled.

The advantages which came with the half-watt lamp were these:

The grime and dust of the consumed carbons could be avoided; also the need for constantly renewing them. Risks of fire were lessened, and once properly installed the lamps were safer for the non-technical operator to manipulate, and the sitter felt more at home under the warmer light than under the colder effulgence of the arc. But the greatest of the benefits we gained with the introduction of this lamp is the better rendering of tone values and the much increased power of control in lighting our sitters.

As in the making of an artistic picture, the chief thing is what we are able to leave out, so in this matter of lighting the advantages lie all on the side of that illuminant which can be most readily kept from flooding the room with undesired detail and yielding the greatest variety of effects. You may say the actinism of the arc is so much greater and that for a given number of watts the effect is far more powerful than with the same current going through half-watt lamps.

That is largely a question of the manner in which the two systems are employed. The arc requires much more diffusion, needs to be used at a greater distance from the sitter, and is less amenable to shading control than the gas-filled lamp. I have brought here tonight a small portable outfit, which anyone with a little assistance from the tinsmith and ironworker can put together at quite small cost. You will find it contains many essentials of the permanent studio installation, but in miniature.

The supporting pole has a sliding rod—one of the old curtain poles with a fairly heavy circular plate and ball castors makes an excellent stand. The rod is

FOR THE PROFESSIONAL

pierced for pegs, and has a 5-foot projecting arm easily placed in position for carrying shaded lamps, which control the lighting of the sitter's hair and shoulders. On the upright pole are grips and rods which carry slightly larger shades (about 12x10 inches.)

The handle is made hollow so that the lamp and shade easily come off the rod, and the exposure made with lamp in hand instead of on the pole. The background may be lighted with one of the spare lamps, the whole object being to obtain control of the direction the light is to fall and to work pretty close to the model.

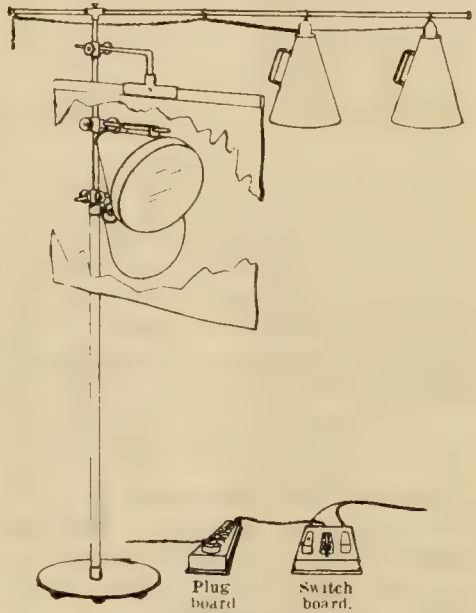
The shades are painted inside with white flat Japan, the lamps themselves acid-obscured at the front, or diffusion secured by fitting on a sort of biscuit-tin lid stretched with China silk or translucent paper held in position with a spring in the lid. Matt varnish for "frosting" should not be used, as it quickly turns yellow.

Lamps should be fitted into the screw-in type of holder, and not the bayonet form, as great heat is generated by the "half-watt" lamp and the spring contacts rapidly weaken.

Mr. Turner then demonstrated the manner of working with 200-watt lamps in the shades, and said one of the advantages of such a "pocket edition" of a lighting apparatus was that it could be worked off the ordinary house wiring and from a 5-ampere switch, if the switch was a sound one of good pattern—many, of course, being badly made and liable to arc.

In referring to the permanent appointments of a studio required for large groupings and single-figure studies, Mr. Turner said he believed in methods of quickly enlarging and reducing not only his lighting area, but his reflecting area; in other words, he made a large studio or a small one by carrying in or out reflecting walls of whitened canvas hung on rollers from "T" iron supports. Many photographs were exhibited to illustrate this studio method, and the types of lighting obtainable. No small interest was shown in the use of "Meccano" carriages to support the lamps running on the "T" irons, and from iron wire stretched from the top

of the studio. It is a novel and effective device worked out by Mr. Eric Turner.



Mr. Turner particularly explained that these reflectors were the usual white grounds. When employed in a lowered position he was careful not to let them come below the level of the top of the head, otherwise an unpleasant appearance was produced on the eyes of the sitter. Also, when a lamp was burning on the right side, the corresponding lamp on the left side requires to be switched off, otherwise there is lack of modelling. Further, great care has to be taken that no light from either the ceiling or the sides shall fall towards the lens. This is easily prevented by angling the reflectors somewhat, that is to say, inclining them towards each other so that they form the sides of a triangle the point of which is in the neighborhood of the camera. A screen may also be used with advantage, narrowing the opening towards the "box of light."

One of the advantages of this false ceiling is that with the coming of "summer time" one section easily slips partly back over the other, leaving plenty of daylight through the ordinary skylight. Under

CAMERA CRAFT

this arrangement daylight negatives may be readily made as and when the light permits, and the lamps employed for Rembrandt or other fancy lightings. Mr. Turner's experience has been that the arrangement allows of a great amount of control in a large studio, such as his is, and as are many of those built years ago when the chief aim was to get a flood of light.

The General Electric Co., of Kingsway, kindly lent the half-watt lamps used for the demonstration, and Mr. Turner said this great firm was always interested and helpful in the development of apparatus as applied to photographic purposes. At the

moment he was experimenting with one of their new 500-watt "flood lights," which promised to be a useful accessory for special work.

Messrs. Marcus Adams, Corbett, Speaight and Banfield contributed a most interesting discussion which followed the demonstration, and the president, in proposing a vote of thanks to Mr. Turner, said he was impressed by the great instructional value which had resulted from the remarks of all the speakers of the evening, treating the subject, as they did, from so many points of view.—B. J. of Photography.



CLUB NEWS AND NOTES

Southern California Camera Club

From the Accelerator we learn that our photographic class for beginners, is meeting with real success. It seems a number of advanced workers have of late joined the ranks of the tyros; we think they have done wisely as we know Mr. Howe to be a thoroughly practical man having for some years been professionally connected with photography.

It seems that to (John D.) Boyer belongs the credit of suggesting the name Accelerator for the Club's bulletin. It's an excellent name "John" and the equal of any of them.

Milwaukee Camera Club

This young Club now boasts ninety members and as there is considerable enthusiasm among this ninety, the membership is naturally growing apace.

The Milwaukee Camera Club has just held a most successful photographic exhibition, it was their first one and the pictures showed considerable talent and painstaking care in their execution.

Camera Craft extends to this progressive organization its heartiest congratulations and it hopes in the not too distant future, to learn of some of its advanced workers pictures gracing the walls of our leading photographic salons. Here's good luck to you Milwaukee!

Buffalo Camera Club

The Buffalo Camera Club held its annual election for officers last Friday evening, with the following results:

President, R. R. McGeorge.

Vice-President, C. L. Moore.

Secretary, C. R. Phipps.

Treasurer, C. A. Pierman.

The club expects to hold its annual exhibition at the Buffalo Academy of Fine Arts during the month of March next, and to which all pictorial exhibitors will be invited to contribute. Club rooms at 463 Elmwood Avenue, Buffalo, N. Y.

Newark Camera Club

The members have voted unanimously to adopt the following change in the By-Laws, as recommended by the Dues Committee: Art. V., Sec. 1, to read:

"The annual dues for active members, shall be Twenty Dollars (\$20.00) payable quarterly in advance."

This new scale of dues takes effect October 1, 1922.

"Uncle Bill" Compton won the annual Slide contest on Tuesday, May 2, with his delightful vista, "Longwood Valley." He won the "Silver" in a field of ten members who contributed 107 lantern slides of the usual high standard of N. C. C. work. The quality of "Uncle Bill's" slide was outstanding and was highly commended by the judges.

INTERNATIONAL PHOTOGRAPHIC ASSOCIATION

Officers of the I. P. A.

F. B. Hinman, President, Evergreen, Jefferson County, Colo.

Louis R. Murray, Chief Album Director, 927 Ford St., Ogdensburg, N. Y.

A. E. Davies, General Secretary, 1327 Grove St., Berkeley, Calif.

If there is no officer in your State, address the General Secretary.

Answers to inquiries concerning membership and membership blanks will be supplied by the State secretaries. Album directors are at present acting as State secretaries in such of their respective States as have as yet no secretaries.

John Bieseman, Director Post Card Albums, Hemlock, Ohio.

Lovic Meredith, Director Steroscopic Division, Ruppertstown, Tenn.

A. E. Davies, Director Lantern Slide Division, 1327 Grove St., Berkeley, Calif.

STATE SECRETARIES

California—A. E. Davies, 1327 Grove St., Berkeley.

Colorado—H. E. High, 1023 Champa St., Denver.

Idaho—Eugene Clifford, 902 9th Ave., Lewiston.

Iowa—Harry B. Nolte, Algona.

Kansas—H. H. Gill, Hays City.

Louisiana—Samuel F. Lawrence, 1754 Laurel St., Shreveport.

Mississippi—George W. Askew, Jr., 211 34th Ave., Meridian.

Missouri—J. F. Peters, Room 408, Union Station, St. Louis.

New York—Louis R. Murray, 927 Ford Street, Ogdensburg.

Oregon—F. L. Derby, La Fayette.

Stereo Workers

Set Number Two will go forward August 15, 1922. Those not having suitable mounts should send prints which will be transposed and mounted. Set No. 1 is now traveling in California. Members sending slides should send data and title and not to exceed six in number.

Lovic Meredith.

Post Card Album Division

The seventh number of the semi-annual Post Card Albums commenced its route April 1st, from the Camera Craft office; these will be mailed alternately as they are issued, from California and Ohio; thus all members will be pleased to know, if they are last on the list of one issue, that they will be near first on the list of the next album routed.

The present number contains 69 choice

photographs; many are nicely toned, others artistically hand colored. The weight of album will, as prior issues, not exceed one pound parcel post rates.

About twenty members are represented in this issue, from thirteen states; these albums could well accommodate photos from a standing list of thirty-five members; admitting not less than fifteen more recipients for the next future issues; most especially do we solicit those readers of Camera Craft from the south and northern states.

Thirteen contributors to the present album, have prints already advanced for several of the next issues. The next album will, as periodically, be routed from Ohio, October 1st.

John Bieseman,
Post Card Album Director.

NEW MEMBERS

5186—G. V. Clark, Trevose, Spilsby Road, Boston, Lincolnshire, England.
Class 3.

5187—John N. Wilson, 2022 East McGraw St., Seattle, Wash.
Class 3.

5188—Charles Farber, 44 Broad St., New York, New York.
Class 3.

5189—George F. Hogan, 220 West 69th St., New York, N. Y.
2¼x3¼, 3¼x4¼, 9x12 cm., 4x5 and 3 1/4x5 1/2 P. O. P. Bromide and Velox of architectural, monumental, naval and marine; for the same; sizes 4x5 and 9x12 preferred. Class 1.

5190—J. Van Winckel, Luikstraat, 98 Lokeren, Belgium.
Any size from 6½x9 to 13x18 cm. Bromide, gas-light, and carbon of landscapes, architectural subjects and portraits; for same. Class 1.

5191—M. E. Morgan, P. O. Box 207, Williamstown, Vermont.
Class 2.

5192—J. H. Imhoff, 1305 E. Madison St., Portland, Oregon.
3¼x5½ of Oregon scenery in and around Portland, Columbia Highway. Will try for any special scenes desired. Have a large collection of monuments; for views, scenes, or anything of interest from different localities. I desire to exchange only amateur work as mine is all that kind.
Class 1.

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RENEWALS

- 2990—Jas. L. Vaughan, R. F. D. 1, Belvidere, N. Y.
Would like to exchange standard size $3\frac{1}{2} \times 3\frac{1}{2}$
stereo views unmounted; for others, especially
those from Holland and along the Rhine in Ger-
many. Class 1.
- 4633—A. E. Hindle, 277 Willows Lane, Bolton,
England.
Class 2.
- 4808—Dean P. Holmes, 11 West 2nd St., La Junta,
Colorado.
Class 2.
- 4926—Elmer O. Underwood, R. R. 1, Dufur, Oregon.
Would like to exchange post cards; have good
scenic and bathing girl photos, also genre.
Class 1.

CHANGE OF ADDRESS

- 2235—Chas. A. Holman, 7850 Foothill Blvd., Oak-
land, Cal.
(Was Hammonton, Cal.)

- 4865—H. Cleve Burr, P. O. Box 372, Auckland, New
Zealand.
(Was 69 Gt. South Road, Epsom, Auckland, N. Z.)
- 5006—F. J. Barnecut, Mulhurst P. O., Miller, Alta,
Canada.
(Was Edmonton, Alta., Canada.)
- 5030—Luther L. Bruker, 211 Cartier Bldg., Luding-
ton, Mich.
(Was Davenport, Iowa.)
- 4363—Jonathan T. Welsh, 2117 Regent Pl., Brook-
lyn, N. Y.)
(Was 50 Fort Greene Place, Brooklyn, N. Y.)
- 4676—W. C. Telford, Phoenix, Arizona.
(Was Kerckhoff, via Auberry, Cal.)
- 4975—Harry B. Bradley, 2048 Polk St., San Fran-
cisco, Cal.
(Was 3893 17th St., San Francisco, Cal.)
- 4997—Homer S. Wyatt, R. No. 2 Waynesville, N. C.,
c/o Mr. Z. L. Massey.
(Was 17 Moore St., Sanford, N. C.)

OUR BOOK SHELVES

The Scottish Photographic Federation Blue Book

This little book will be of interest to our Scottish friends and to amateurs who are able to travel. Among its pages the reader will find a gazetteer of the beauty spots of Scotland and its many historical points of interest. Besides this, under the title "Beyond the Border," we have listed points of interest in England, Wales and Ireland, and a few pages are devoted to particulars of continental cities. A portion of this booklet is devoted to exposure table, comparative speeds of bromide, gas light papers and lantern slides, besides information on developers and other information of value and interest to photographers. The price of this Photographic Blue Book is three pence, John Macdonald is editor, 27 Aberfeldy Street, Dennistoun, Glasgow.

A Poet Actor

We hear "on the street" that John Golden, the playwright, has offered Bliss Carman, the poet, an opportunity to play the role of Bill Jones in a third company, now organizing, for "Lightnin'." At first Carman refused to take the job. He holds, you know, honorary degrees from various colleges and universities; was recently

crowned Canada's poet laureate, and is, finally, "not at all partial to toil." However, the Golden offer was an attractive one so the poet apparently decided on deliberation, and we understand that the upshot of it all was that Carman studied the part and now reads it very well. At last reports he still has the offer under consideration. Which leads us to remark in passing that Carman really should give us another volume of verse or something, his last published book being, so his publishers, The Page Company, Boston, inform us, "The Making of Personality," issued in 1908.

William Desmond Taylor Played in "Anne of Green Gables"

William Desmond Taylor, the unfortunate "movie" director, whose death continues to remain an unsolved problem, played the part of Matthew Cuthbert in the film based on "Anne of Green Gables," in which Mary Miles Minter was starred as "the dearest and most moving and delightful child of fiction," to quote the late Mark Twain. Several "stills" of Taylor, with the charming Miss Minter, appear as illustrations in the Mary Miles Minter edition of "Anne of Green Gables," (published by Page, Boston.)

NOTES AND COMMENT

A Department Devoted to the Interests of our Advertisers and Friends
In it will be found much that is new and of Interest

While the notices under this heading are strictly in the nature of information and news for the benefit of the reader, and are neither paid for nor actuated by our advertisers, we are compelled by the Postal Laws to mark them as follows:—Advertisement.

The Haloid Company

The Haloid Company is pleased to announce that Mr. Frank N. Leache will represent us in New York City, beginning June first. Our business at the New York branch has grown to such proportions as to necessitate larger representation. Mr. C. H. Daws, our present manager, assisted by the efficient services of Mr. Leache will enable us not only to care for the requirements of our present patrons, but to bring to the attention of the entire professional and commercial trade of the metropolis, the splendid line of papers which this company is manufacturing.

We bespeak, both for Mr. Daws and Mr. Leache, your friendly consideration.—Advertisement.

Portrait Enlargements

On another page of this magazine there appears an announcement from Obis & Matusek, Photo Art Studio, 68 W. Washington Street, Chicago, Ill., which will be of interest to some of our readers.

This house makes portrait enlargements, tint-border enlargements from original negatives and good copies, also, porcelain miniatures, ivory miniatures as well as plain prints. Besides doing the photographic work, this company undertakes to finish the pictures in oil or water color if desired and this has proved a great advantage to many photographers as increasing mail orders show.

Obis & Matusek direct special attention of artists to their improved method of producing a photographic print direct on canvas equal to a bromide print in every respect. This work is done on the best heavy canvas mounted on frames and when occasion requires separate photos are

copied and regrouped into one picture with judgment and skill.

The commercial artist will recognize and fully appreciate the value of this kind of professional assistance.—Advertisement.

The Camera Doctor

As we passed the store of G. E. Biddell & Co., Inc., 53 Fourth Street, we dropped in to see the latest addition to the repair department, which consisted of a new lathe with the very latest improvements. As an example of precision machinery it is wonderful. It reduces time and increases quality of output, a valuable addition to the rest of the plant.

No one who has failed to visit the Biddell store can have any idea of the stock of cameras and lenses carried. Besides a variety of new apparatus there can always be found a choice of second-hand goods in similar lines. Out of town customers will usually be able to meet their wants by addressing an inquiry to this house. Furthermore, they should have no hesitancy in doing so, for G. E. Biddell has been in this business twenty-two years and is himself an expert mechanic. All the work leaving his store receives his personal supervision, and he carries a staff of skilled workers to insure prompt delivery.

Among the new goods may be found a full line of G. Gennert's cameras and photographic supplies, and also, cameras and outfits for the moving picture fraternity.

Besides all this, Mr. Biddell also has his own finishing plant, here is handled the local and mail-order finishing business. It will pay anyone to glance over the offerings of "The Camera Doctor" in each month of Camera Craft, for this house has been a steady advertiser with us for years.

CAMERA CRAFT

First New York Exhibition of Collective Works of Elliott Torrey, the Vermont Painter

Elliott Torrey, the versatile Vermont painter, has returned to New York with some thirty canvases, twenty-six of which are now to be seen in a "one man show" at the Macbeth Gallery, 450 Fifth Avenue.

This collection, which contains three large marines, some lovely juvenile nudes, a number of interpretative portraits, several colorful landscapes, two remarkable "still lifes" and an interesting French decorative canvas, will remain on the walls for public inspection.

Although his work has been seen in all of the larger exhibitions, this is the first collective showing of Elliott Torrey's paintings that has been held in this Gallery and because of the wide variety of subjects covered it furnishes an unusual opportunity for art connoisseurs and students to study his original and striking technique.

Announcement

The success of the Fifth Annual International Salon of Photography leads the Camera Pictorialists of Los Angeles to anticipate with great enthusiasm the opening, this year, of an exhibition which shall represent every country in the world in which pictorial photography is practiced and which shall secure more liberal participation by American artists.

While it is not believed that the standard upon which last year's work was accepted can be raised, nevertheless certain innovations are planned which will gain for the devotees of the art more liberal and interested patronage of the public.

Regular entry forms will be mailed in time to enable contributors to have their entries reach the Salon Committee before November first, 1922, which will be the last day for receiving prints.

The Camera Pictorialists of Los Angeles welcome you to "The Sixth Annual International Salon of Photography."

November 20th to December 11th, 1922, Museum of History, Science and Art, Los Angeles, California.

Camera Pictorialists of Los Angeles,

N. P. Moerdyke, Secretary.
811 Washington Bldg.

Heliar Lenses.

We much regret that through a typographical error in Charles G. Willoughby's announcement in our July issue, the 8¼-inch Heliar Lens selling at \$74.80 was printed as of 8½ inch. We hasten to correct this statement, which is not according to facts.

We wish to draw our readers' attention to the well-known Heliar Lenses. They are now offered at pre-war prices, including war tax. Look up the advertisement of Charles G. Willoughby, Inc., 110 W. 32nd street, New York City, which appears on another page of this magazine.—Advertisement.

Copenhagen, Denmark

Recently, there were exhibited on the walls of the California Camera Club a number of pictures which had been shown in Copenhagen by American and foreign photographers. We were pleased to note among the collection some choice prints from members of the two photographic associations of this city: The Pictorial Photographic Society of San Francisco and the California Camera Club.

It was through the efforts of Albert Peterson, supported by Chas. A. Love, Chairman of Print Committee, that this exhibition was brought together. These meritorious examples of the photographers' art will undoubtedly stimulate the efforts of all amateurs who visited this collection of prints.

Swiss National Exhibition of Photography in Geneva

In commemoration of the Centenary of the first researches of Daguerre relating to photography, a National Exhibition of Photography will be held in Geneva, in May, 1923, (11th to 21st), to which exhibition will be added an International section for all that concerns apparatus and products employed in Photography, and a documentary exposition of the History of Photography.

The National Exhibition proper, will take place in the great hall of the Electoral Palace of Geneva, and will consist of two divisions:

The Professional Photographers' section.
The Amateur Photographers' section.

NOTES AND COMMENTS

Only these last will be admitted to the competitions organized during the exhibition.

On the other hand, on the spacious galleries of the first floor of the Palace, firms of all nationalities will be empowered to exhibit their most recent models of apparatus and the most remarkable products employed in photographic art.

Finally, in the magnificent setting of the Reception Hall of the Council of State, a Retrospective and Scientific Exhibition will not fail to secure the most powerful interest.

Special committees are being formed who will secure to the Swiss National Exhibition of Photography the requisite importance and success which will be further enhanced by numerous conferences and magic lantern and cinema evenings.

All information to be obtained from M. P. Rudhardt, Director, 12 Boulevard du Theatre, Geneva, Switzerland.

Interchanges

Notice has been sent to all members of the Associated Camera Clubs of America informing them that the 1922-1923 Print and Lantern Slide Interchanges will close with entires received at headquarters 27 Franklin Street, Newark, N. J., on September 1, 1922. Sets intended for these interchanges must be in the hands of the respective Interchange Directors not later than October 1, 1922. These Interchanges have been running for the past four years and are made up of the work of the best clubs in America. The last Interchanges had fifteen members circulating sets and it is expected that the coming year will show both an increase in the number of clubs entered and a continued improvement in the work contributed.

The Association Secretary, Mr. Louis F. Bucher, is always glad to hear from newly founded organizations and from those contemplating the organization of a camera club or photographic society. In order to aid the formation of such bodies a booklet has been prepared under the title of "The Camera Club, Its Organization and Management," and will be sent to those interested upon application without cost. Mr. Bucher would also like to hear from newly organized clubs so that an index may be

kept in order that persons requesting information from the A. C. C. of A. as to whether there is a camera club in his city, may be properly answered. Letters addressed to the Association will receive prompt replies.

Ernemann Cameras.

We have just received from Herbert and Huesgen Co. the latest catalog of Ernemann Cameras. Herbert and Huesgen Co. are the sole distributors in the United States of these famous goods. The name "Ernemann" on a product is accepted throughout the world as being an absolute guarantee of the highest possible quality.

The catalogue itself is printed most tastefully, and the many illustrations used will give the reader an excellent idea of the appearance of the different camera models. It is interesting to note the various refinements of construction embodied in these Ernemann cameras, and these refinements are making hand cameras more nearly approach the all-round camera so long hoped for.

If you wish to familiarize yourself with things that are choice, ask Herbert and Huesgen Co., 18 East 42nd street, New York City, N.Y., to mail you this catalog. Look up this firm's advertisements in other parts of this magazine, and learn other interesting particulars.—Advertisement.

Hewes Laboratories

We are pleased to draw the attention of our readers to the two announcements of the Hewes Laboratories, Manufacturing Chemists, North 13th and Berry Streets, Brooklyn, N. Y. This firm specializes in the manufacture of photographic chemicals which are in every way up to standard and may be depended upon.

The Hewes Laboratories have also placed upon the market "Exemetol" a preparation for the treatment of Metol poisoning and other skin ailments. Photographers suffering from Metol poisoning which has defied home treatments should give Exemetol a trial.—Advertisement.

CAMERA CRAFT

Marsh & Company

Many friends and patrons of this house urged Mr. Marsh to avail himself of his exceptional location to add an optical department to his popular store for the convenience of his customers. This has recently been done with gratifying results.

The optical department occupies the upper end of the store and it adds greatly to its attractiveness by a neat plate glass counter of uncommon design, displaying various styles of glasses and a variety of frames. Behind the counter extends a darkened room for eye-testing and all the necessary work is done on the premises.

Dr. Allan H. Browne, a qualified optometrist and optician of eighteen years' experience, is in charge of this department and he is ready to take care of one's every optical need. Dr. Browne will give freely expert and authoritative advice on the care of the eyes, and all duplications and repair work entrusted to them will have his personal attention.—Advertisement.

They Motored

H. E. Burns of Marsh & Co., on July 4th, motored with friends and a 3A Kodak to Congress Springs for an outing. On July 7th it was discovered the Kodak had been lost. "Ni'l desperandum," said Burns, we will take a chance Sunday. On July 9th, Sunday, the search party motored to the same springs and there, from the limb of a tree hung the blessed Kodak.

At the store they marveled at man's honesty: "Huh!—retorted a grouch, that's a proof that man is growing shortsighted, those people down there need Dr. Allan Browne's attention."—"Can you beat it?"

P. S. Mr. Burns later inquired of the writer—"Did you say we MOTORED?"

"Yes, four times," we replied, and our readers won't stand for a repetition."

"You're all right," said B—"have a cigar!"



The winning picture for the April competition of the Meteor Flash Powder Contest. The name of the winner is Mrs. Edwin Meyer, 421 North Parks St., Reedsburg, Wisconsin.

SAN FRANCISCO
PUBLIC LIBRARY

CAMERA CRAFT



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CALIFORNIA

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Claus Spreckels Building, San Francisco, California



CAMERA CRAFT

A Photographic Monthly

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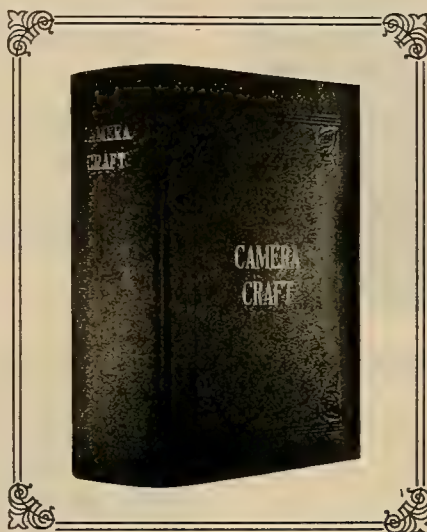
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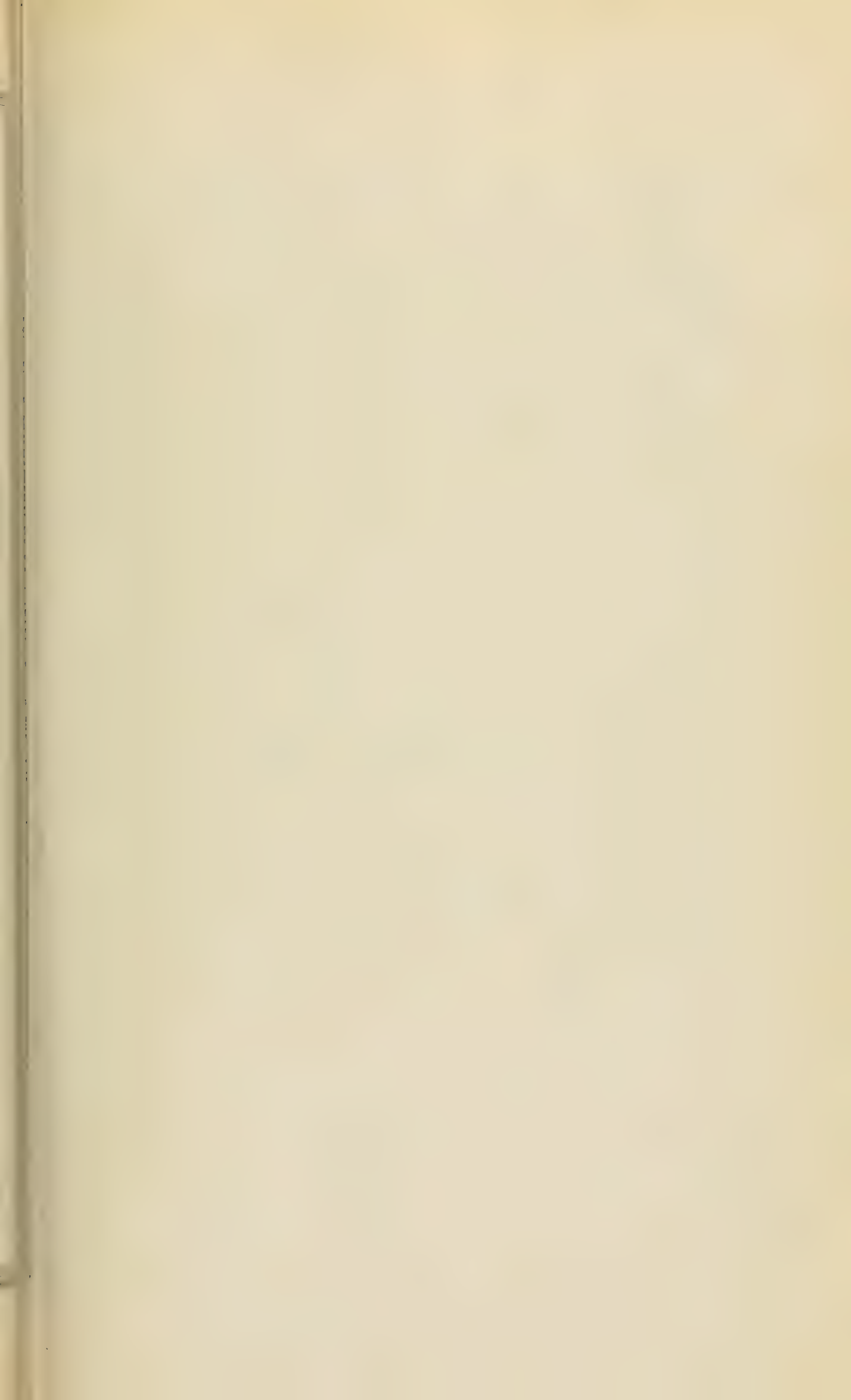
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CAMERA CRAFT

CLAUS SPRECKELS BLDG.
SAN FRANCISCO, CALIF.





"HUSH, AT EVENING"
By LAURA GILPIN

CAMERA



CRAFT

A PHOTOGRAPHIC MONTHLY

H. D'ARCY POWER, M. D.
Editor-in-Chief

EDGAR FELLOES,
Associate Editor
CALIFORNIA

CLAUS SPRECKELS BLDG.

SAN FRANCISCO

VOL. XXIX.

SEPTEMBER, 1922

No. 9

With a Camera in the Yosemite

By Merton E. Fournier
Yosemite, California



With Illustrations by the Author

It has been truthfully said that nowhere else will one find scenery so beautiful and yet so diversified as in the Yosemite National Park. Here in the heart of the Sierra Nevada Mountains will be found lakes without number, countless streams and waterfalls, mighty cliffs and gorgeous valleys, grassy meadows, and mountain tops crowned with everlasting snows. Truly, it is the photographer's paradise.

I had the good fortune to spend the past summer in the park, exploring many of the photographic possibilities of the region; not only those of the valley itself, but the more distant and less known but none the less beautiful sections. And as everyone who visits this region will bring some sort of a camera, perhaps a few of my observations will be of interest.

Of course everyone who takes pictures wants them to turn out as good as possible, and when they do not, one is disappointed. Many camera users, however, are prone to place the blame for their failures where it does not belong. How easy it is when one's pictures are not a success to blame the finisher—those of us at least who take our films to others to have them developed and printed, or the camera, or the film, or the light or something else, when, in reality the only trouble lies with the user.

No matter how beautifully constructed a camera may be, or how well corrected its expensive anastigmat lens, it is only a camera, and it will do

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only what the user, through his understanding of the principles involved in its use, will let it do. Many a good picture has been made with a camera costing not over two or three dollars and perhaps an equal number of failures have resulted with cameras costing well over a hundred. It is in these failures more than in our successes that we should take interest, for it is in the elimination of failures that successes result.

Of all the factors that contribute to the success or failure of photography, that of exposure is probably most important. As it is upon the correctness of the exposure that all else depends. Far more pictures are spoiled through underexposure than are ever ruined by too much light, and this is true in the Yosemite as elsewhere.

Some may be tempted to ask, right here, what effect the increase in altitude will have on the exposure of Yosemite subjects—as it is well known that the elevations in the park range from 3500 to 13,000 feet. It is true that the higher one gets the stronger the light becomes, so the natural conclusion would be that one would have to stop down, or give a shorter exposure than at a lower elevation.

However, due to the fact that the great majority of amateur negatives suffer from underexposure, I do not feel that there is any justification for advising any shorter exposure than that to which one is accustomed. In actual practice, it will be found that when working at an elevation above 6000 feet that one may shorten their exposures slightly, giving 1/35 second where 1/25 would suffice at a lower level; but certainly no less.

The question as to whether it is better to use plates or films is a hard one to answer. It is true, of course, that the majority of amateur negatives are made on film. Personally, where the question of weight or bulk is of no great consequence, my preference lies with plates. The chief reason is that it is possible to get plates which are orthochromatic to a greater degree than is obtainable in films.

On that account, such a plate when used without a filter will give a more satisfactory color rendering than a film. Also, the greater the degree of color correction possessed by the plate or film in use, the lower will be the exposure factor when a filter is employed. In other words, where a filter will have a factor of, say, ten times when used with films, the same filter may have a factor of only three, or even less times, when used with a good orthochromatic plate. So often, when due to the wind or other causes the use of such a filter with films is out of the question, by substituting plates the filter may be used and still allow sufficiently brief exposure. And it is safe to say that out of every ten landscapes, there are at least eight that would result in a better picture through the proper use of a filter.

Take an ordinary day, even up in the mountains, and you will usually distinguish at least a faint blue haze off in the distance. This haze is one of the most frequent causes of failure in mountain work where any great distance is included. As I have stated, this haze is blue, and as we all know, it is to blue that the photographic plate is most sensitive. So of course, this blue

WITH A CAMERA IN THE YOSEMITE

haze is going to affect our emulsion more than we would wish for, and effectually prevent any of the distant detail from coming through and registering on the negative.



CATHEDRAL SPIRES, YOSEMITE

But now if we take a plate that is also sensitive to yellow and green, and then employ a filter that shuts out most of the blue, while still letting the yellow and green come through, we are going to eliminate to a large extent, the effect of this blue haze; and the far off detail will register as we would have it. As a weak filter will hold back a certain amount of the blue, a stronger filter will naturally hold back a larger amount. So in case the haze is very pronounced the use of the stronger filter will give us a clearer picture. Of course the use of any very strong filters will increase the



YOSEMITE CLOUDS

exposure to such an extent as to make a tripod a necessity. But to one who cares more about his pictures than just the pleasure derived in taking them, this is not going to be a drawback. To such a one, a tripod means almost as much as the camera itself; and his tripod is going to be a real one that will actually support a camera without fear of its momentarily capsizing.

In Yosemite Valley itself, there are so many subjects that are so well known, even to those who have seen them only in pictures, that to describe them all would only be a waste of space. However there are a few subjects that even the most ardent camera-enthusiasts pass up, which are worthy of mention. The two pinnacles along the south wall known as Cathedral Spires, make one of the most interesting and unusual subjects. The accompanying illustration, taken in the late afternoon with the sun streaming towards the camera, showing the spires in silhouette, makes a most striking subject.

Many afternoons, great white, fleecy clouds will be seen arising from Mirror Lake, and forming around the top of the huge Half Dome. Caught at the right time, this will make one of the most attractive of all one's Yosemite pictures. To photograph these clouds the little device known variously as a sky filter, and foreground screen, will be found useful. It consists of a screen colored only at the top so as to hold back the sky while allowing the darker portions of the picture sufficient exposure. When using a filter of this kind no increase in exposure will be necessary. The accompanying picture was made through a filter of this kind.

WITH A CAMERA IN THE YOSEMITE



YOSEMITE VALLEY—From Artists' Point

View taken at 4:15 p. m. in July

Much depends on the lighting of the subject as to the way it will photograph, and this is particularly true of the Yosemite, where there are so many great cliffs to throw their shadows, with the result, many subjects can only be photographed advantageously at certain hours of the day. As a general rule it is in the early forenoon, or late afternoon hours that one will get their best pictures. During the middle of the day, when the sun is so far above the horizon, the lighting becomes flat and lifeless.

The two pictures of the valley, as seen from Artists Point on the south wall, will show what difference the lighting conditions can make. The one, made at 4:00 p. m., shows all the features of the valley clear and sharp. The other, taken from nearly the same spot, at 8:00 a. m., shows the valley while still veiled in shadow with all its sharp outlines softened, and harsh detail missing. In the first instance, where an exposure of $1/25$ second at F-11 gave a well exposed negative, in the case of the other, an exposure of one second at F-8 proved none too long.

A chapter of descriptive matter could be written on the waterfalls of the Yosemite alone, and as they offer some of the valley's most attractive picture opportunities, a few words on photographing them may not be amiss here. Some persons think that a waterfall is an exceptionally difficult subject to photograph well, whereas just the opposite is the case.

One of the most frequent mistakes the amateur makes, is in assuming that, due to the motion of the water, a very brief exposure must be given.

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YOSEMITE VALLEY—From Artists' Point

View taken at 8 A. M. in September

I have seen those, who, using a camera fitted with a shutter allowing an exposure as short as $1/300$ of a second, have insisted on using that speed in spite of all assurances that a badly underexposed negative will result. That is an extreme case, of course, but it only serves to illustrate.

On the contrary, one who tries photographing a waterfall with a comparatively long exposure will be surprised at the life-like results obtained. In nine cases out of ten an exposure of $1/25$ of a second will be found sufficiently short and it is a rare fall indeed, that necessitates an exposure of less than $1/50$. With a Graflex I have made numerous waterfall pictures with an exposure of $1/15$ or $1/20$ of a second and they show none too much movement.

Of course it is altogether possible to photograph a waterfall with an exposure much shorter than those indicated, but the result will invariably be a picture that in no wise expresses the true character of the fall. Instead of giving an impression of the motion that the eye sees, the shutter has succeeded in stopping that motion so completely that the fall looks as if it were frozen. Such pictures may appeal to the speed enthusiast who judges it by the degree to which all motion has been stopped, but from a pictorial point of view, where we want to give an impression of the subject as it appears to the eye of the beholder, it is most unsatisfactory, because it does not reproduce nature.

WITH A CAMERA IN THE YOSEMITE

No visitor to the Yosemite should miss seeing the big trees, which are in three separate and distinct groves. The larger and better known of the three is the Mariposa grove, in the southwest part of the park. Here is the



VERNAL FALLS, YOSEMITE

Wawona tree, through which a road has been tunneled, the Grizzly Giant, and others no less famous. In the park are also the Merced Grove and the Tuolumne Grove, both of which contain many large trees.

In attempting to photograph here among these giant redwoods, where much of the light from the sky is cut out by the dense foliage, a time exposure will invariably be necessary. Here again a tripod is indispensable.

One will find that to take in much more than the base of these forest giants, the camera must be tilted upward at a considerable angle, unless it is fitted with a rising front. Even then it is often desired to include more than the rise will allow. As a result the picture will show the trees leaning toward



IN "LITTLE" YOSEMITE


each other at the top. This can, of course, be corrected in the process of enlarging, by tilting the easel holding the paper sufficiently to bring the trunks back in the perpendicular.

But if one is so fortunate as to have a camera equipped with a swing back such defects can be obviated in the negative. By its use, one can keep the plate in its proper position, and at the same time raise the lens to the degree necessary to obtain the desired composition. In doing this, however, it will be noted that while the top of the picture may be in sharp focus on the ground glass, the bottom may be out of focus, or vice versa. To remedy this it is only necessary to stop the lens down somewhat, and the picture will again be sharp all over.

It may also be found that to use the rising front beyond a certain point, will result in part of the picture being cut off. Often this is not as easily distinguished on the ground glass as it is on the finished print. The remedy here is to tilt the camera, use the swing back to keep the plate vertical, and stop down to get sufficient depth of focus.

In this connection I would advise one who is not certain as to just what extent the rising front may be safely employed, to test it out on some handy subject; then mark the front standard where the picture begins to be cut off, and henceforth never use the rising front beyond this point. For it is far easier to prevent troubles of this kind than to try to correct them later.

(Concluded next month)



III. The Kansas City Convention P. A. of A.

MR. WILL H. TOWLES' PORTRAIT DEMONSTRATION

By Edgar Felloes



With Illustrations From Will H. Towles' Work

Personality with the portrait photographer is undoubtedly a great asset. If he can make you like him, he can also photograph you. One then feels comfortable in his presence. An uncomfortable subject can not be successfully photographed.

Mr. Towles of Washington, D. C., is rather a short man, inclined to stoutness. He is good natured and very obliging; an alert and busy man, but somehow always has time. This may seem paradoxical. When one speaks to Towles, he is all attention; he gives the feeling, his time is your time; that is his personality. You experience ease—he wins out.

Will H. Towles has quite a reputation, as a photographer he is one of the best, and we noticed he was listed to give four demonstrations at this convention. This we should think he would deem an honor, to have a body of men, professional photographers, wish him "to show them."

We understand Mr. Towles is a self-made man. In his youth he mined coal for a living, but photography "got him," it meant more to him than anything else, he took it up and studied, and his work today shows the fruits of that study. It is as well to remember that in those days there were no schools of photography and comparatively few books on the subject. If one wished to learn the art, it was largely a case of dig. Towles was a good digger, he had learned digging as a boy, had developed "backbone" and this he needed, to make him the success he is. Like most self-made men, Towles has his ideas and they are of a positive nature. Where would he be as an instructor if he were different?

At the demonstration, we were advised when making a portrait to see the head as a "round," that is, we were not to forget that every part of it curved to the next part. The face was not something flat, but was made up of curves, therefore, we should light our subject to show these curves. We were told to imagine a sphere, the strongest light cast upon it would only show brightest in one spot, the highlight, because it is on a curve. The features being made up of curves will be affected in much the same way. The prominent light must be somewhere, it is the highlight, the other or

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lesser lights must play up to it, to help that feeling of roundness. These lesser lights must not be as bright as that insures flatness, a failing we must avoid.

Now, came the interesting part of the demonstration, we were about to be shown. A three-quarter portrait was to be made of one of the audience, and we will describe the method of lighting used, and we will ask the reader to study the gentleman's portrait here illustrated, there are points about it that are stunning.

One piece of apparatus Mr. Towles used with good effect was a shadow-screen. This was a square frame made of stout wire, and this frame was subdivided by two cross wires, thus we have a square frame containing four lesser squares, pivoted at the point of intersection to the side and top of a metal rod, this is socketed into a metal stand and held at a convenient height by means of a set-screw, located in that stand. The dimensions of the wire frame were about three feet by three feet, and it was covered with some coarse black material resembling cheese cloth. There were two thicknesses of this over the frame with the exception of one-fourth its area, or one small square, and here there was only one thickness of this material. With a screen of this sort the photographer was able to throw a shadow or accentuate a halftone as desired.

The next point demonstrated, was the effect of the proximity of the light to the model. The nearer the light, which was a screened light of large illuminating surface, the harsher the effect, and it was shown that by retiring the light we secured more diffusion and better modeling of the features. The photographer placed his light somewhat to the front of the broad side of the face. Its exact position you may locate for yourself by the light in the eye and down the side of the nose. The shadow-screen was used to intercept some of the light, and a tone was thrown on the receding cheek and the ear. This was quite in accord with the instructions given, the idea was to heighten the effect that the facial curve went around and to the back merging somewhat into the background. On the opposite or dark side of the face, a white screen stood near as a reflector, and this was moved backward until it reflected just sufficient light to detach the features on that side. The reader will note how skillfully this has been accomplished. Particularly notice the off cheek near the chin, where it is almost lost in the background, this sacrifice, insures relief to the other side of the chin, it can not be otherwise, the contrast does this. Now run the eye upwards and you will appreciate the growing distinctness up to the cheekbone and thence on to the edge of the forehead where the photographer has recourse to the spot-light.

Let us examine the face, begin at the forehead. Here in the transparent halftones we see a suggestion of the frontal bone, we can detect the shape of it, that forehead is not presented as one meaningless mass of light with no more modeling than can be found in an inflated bladder. Notice the dip on the right temple in beautiful tone which follows downwards to the corner of the eye, does that not suggest a return plane, the limit of the

III. THE KANSAS CITY CONVENTION, P. A. OF A.



PORTRAIT ILLUSTRATING TOWLES' IDEAS

forehead. Then there is a light on the cheekbone which fades as it approaches the hair. Come further down the cheek, we find a well shaped shadow indicating the upper jaw, and below this, we see the large muscle that controls the lower jaw, and beneath that again a distinct line that curves forward to a well defined dip nearing the chin, and then on again with increasing strength to the definition of an excellent chin. Think how hideous it might all have been if a retoucher was turned loose with his dinky pencil point to improve the work of the All-father.

There is much to be learned from this portrait, more than we may



THE CURVES ARE NOT FORGOTTEN IN THIS LIGHTING

linger upon. The photographer has used his pencil of light to do what the painter does with his brush, and he has shown by his work the same tender care.

Another interesting feature of Mr. Towles' work was his demonstration on semi-silhouettes. This is a novelty and can be used with excellent effect on young people. Many specimens of children's silhouettes are to be met with in magazines devoted to the younger folk, showing children dancing and so forth; some of these would provide good suggestions for photographic copy. The work was done in the following way: A small background carrier was drawn to the center of the stage and a shade drawn

III. THE KANSAS CITY CONVENTION, P. A. OF A.



THE STRONG SHADOW AND JUXTAPOSED LIGHT ADDS SOLIDITY

down of a dull amber color. The electric light was placed on the far side of this shade or screen, and it was evenly lighted. Some leaves and branches or anything suitable, is placed at the edge of the screen to break up the hard line of the frame as shown in our illustration and the subject was posed before the illuminated background. The negative was then made but sufficient time was given the exposure to insure a suggestion of roundness to the figure.

We think with a little study of the example here shown, the reader will grasp many possibilities in this style of picture. The photographer can please himself as to the amount of detail by permitting a greater quantity of subdued light to fall on the subject. The amateur may secure excellent



AN EXAMPLE OF THE SEMI-SILHOUETTE

results in silhouette photography by hanging a white sheet over an open door between two rooms and using flash sheets as the illuminant.

In conclusion we wish to say that the services of Mr. Will H. Towles have been secured as chief instructor for the summer term of the School of the Photographers' Association of America, situated at Winona Lake, Ind. It is believed that if the photographers of San Francisco are sufficiently interested to form an association here, we could secure the assistance of Mr. Towles to conduct a post graduate course in this city to the advantage of professional photographers and their assistants. All this can be accomplished by co-operation.

Every man is an optimist who sees deep enough.—Edwin Atkinson.



Laura Gilpin's Work

By Mary C. Sauter

Coronado, California



With Frontispiece and Three Illustrations

Note: It will interest many readers living in the vicinity of San Francisco, to know that this exhibition of Miss Laura Gilpin's pictures is now on view in The Palace of Fine Arts. There is a whole room devoted to it and the photographs are shown to the best advantage. This artist's work is worthy of study, she handles a variety of subjects with a most pleasing technique.—E. F.

During the spring there was on view at the San Diego Museum, through the efforts of the Friends of Art of that city, an exhibition of photographs by Miss Laura Gilpin of Colorado Springs. Miss Gilpin's work as a member of the Pictorial Photographers of America is spoken of in the highest terms by critics generally and her pictures justly ranked with the foremost in the country.

The present collection, comprising photographs selected from the work of the past five years, is unique in that the work of one person is so comprehensive as to subject-matter and is treated with such a variety of effects and with fidelity to the particular inspiration of each theme. In technique it embraces the several schools of Pictorial Photography; the more clearly defined pictures, the charming soft focus lens work, which in her pictures is always held within bounds and never allowed to become an affectation; and the more pronounced modeling, the culmination of the latest idea in pictorial photography.

The photographs are unusually attractive for their beauty of design and composition and especially for the depth of tonal quality. There are fifty pictures, including portraits, figure compositions, still life, animal studies and numerous landscapes. One of the characteristic portraits is that of "Margaret Carlson." Graceful in pose, refined in handling, it attains the effect of a dry point etching. Individual and unusually virile is a head of Padriac Colum. It is admirably posed to bring out the type of the sitter.

Of the figure studies "Afternoon Tea" shows exquisite tonality and grace. It is soft focus lens work, the three figures in delicate harmony giving almost a monotone effect. Much the same quality is felt in the picture called "We," a study of a boy and dog on a winding colonial stairway. Perhaps the perfection of technique is best exemplified in "The Guardian of the Gallery." It is a forceful picture in tone and essentially noteworthy in the



SNOW SHADOWS

simplicity of its composition and chiaroscuro. "A Summer Portrait" gives an admirable feeling of response in the charming figure against the sunlit tree. "The Marble Cutters" is interesting as a study of the disposition of darks and lights as well as of the subject itself; the interior of a sculptor's atelier with a statue whose outstretched arms dominate the scene.

Miss Gilpin's interest in landscape is most inclusive, and she expresses with equal truth and beauty the delicately interlaced branches of trees almost Corot-like in quality, the fairylike shadows on the freshly fallen snow, and the rugged character of her native mountains. The Garden of the Gods which has doubtless been her childhood playground has revealed to her its many moods and these she has interpreted for us through the instrument of her chosen medium. The contrast of "The Garden of the Gods" with its solemn depths and rugged bigness, "The Shadow of the Garden Rock" where again is a feeling of austerity and massiveness to her "Ghost Rock" with its elusive tonal quality is compelling. "Autumn Sunshine" rich in print quality gives an interesting surface pattern. "The Night Snow Storm" is distinctive, an exceptional effect with the spirit of an old daguerreotype. The bit of light breaking through the trees is a rare piece of handling. "The Pine Tree" a single one of its species silhouetted

LAURA GILPIN'S WORK



SUNLIGHT AND SILENCE

against a light sky, the foreground a dark monotone is wonderfully effective. The unlimited expanse of the plain and the sweep of the wind over it is caught in the picture named "The Prairie," while the relation of the finite to the Infinite is most effectively portrayed by a titanic mountain with a tiny figure in the foreground fittingly called "I will lift up mine eyes unto the Hills."

Still Life is made an object of interest, the two studies shown given entirely different treatment. Several animal studies add to the variety. "Swans," is an exquisite little picture, clever in the utilizing of cast shadows to make a design by the spotting of darks over the surface. "Ducks" also lend their effort toward a study in design, swimming in an admirable rhythm upon the tree-reflected water.

This exhibition will be shown in Los Angeles in April by the Camera Pictorialists, Southern California Camera Club of that city. Such collections always do much to raise the standard of a community to a better realization of the fact long since expressed by Dow and others to the effect that the painter needs not brushes and canvas but may work with light itself, that he may by the control of his subject express his own personality and not be a mere imitator.



DUCKS

Amidol and Spots

“Thermit,” writing in the *B. J. of Photography*, draws attention to the danger of Amidol dust, stating, that even to have an open bottle of the powder in the darkroom is to invite a crop of maroon colored spots on negatives and paper. “Thermit” then proceeds to describe how to overcome the trouble by making a concentrated solution by submerging the Amidol bottle under the solvent, using the Gycollic acid as preservative.

I used to have the same trouble, but I simply make up my Amidol developer outside the darkroom and the difficulty is at an end. I am prepared, however, to hold that no powder of any kind should be allowed in the darkroom, and the mouths of bottles containing solutions should be kept constantly sponged off. You do not have to see dust before it is capable of playing the mischief.—H. D’A. P.



Much in Little

By Carroll B. Neblette



Director, Division of Photography, Pennsylvania State College

Fortunate is the man who owns his home and can set apart a room all his own for the pursuit of his hobby. It is to be regretted that so many either rent their homes or board with other families, so that the finishing of pictures is either a matter of difficulty or forbidden altogether. There is no reason, however, against the use of the bathroom as a dark-room if the proper care is taken of furniture and other furnishing, and the abundance of water is a decided convenience.

Under such conditions tray development is practically impossible, so that a tank is an essential. With the film tank development can, of course, be carried out in full daylight, but if the worker uses plates the tank must either be loaded at night, when almost any room with shades is a dark room, or a changing bag used. This latter is only a large rubber bag provided with an opening, through which the plate holders and tank may be inserted, and two openings with light-tight cuffs, through which the hands are admitted to change the plates. The operation of changing by touch really becomes very simple after a little practice.

It is not advisable for the worker to mix his own solutions under such conditions, and the best course is to settle on a good brand of prepared chemicals, which may be relied upon for definite results. The Tabiloid developers of Burroughs, Wellcome, Co. can be recommended, as can the liquid developer known as Rodinal. The former Tabiloids are issued for almost every developing agent in common use, keep indefinitely, occupy little space, and can be depended upon to give dependable results. The latter is sold under a number of other names, as Azol, Activol, Certinal, Kalogen, but all are substantially the same product, and give identical results. Time and temperature tables are furnished by most of the manufacturers of the preparations referred to, and especially by the makers of Tabiloids.

It is a great convenience to have a place to keep things where they will be handy, and also where children and others cannot get at them. At the same time a table on which to work is needed, and the logical thing to do is to combine these two, placing the table on casters, so that it may be moved into an out-of-the-way corner when not in use. It should be covered with oilcloth, and a strip run around the edge, so as to make a shallow tray and prevent spilled solutions reaching the floor. Underneath

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the table may be the cupboard for holding the necessary apparatus. A table so equipped will contain all of the equipment where it is wanted, and provide a place where one may work without being harassed by the thought of spoiling carpets or rugs.

The best washer that I know of for roll film can be made from a piece of board about four feet long and a couple of wooden strips about two inches wide and one-quarter of an inch in thickness. These strips are fastened on the side of the board, so that they make a shallow trough, and at one end of this a string is attached so as to hang over the water tap to a bath tub. The fixed film is fastened to the board at the upper end with a push pin or two, and water allowed to run down the trough into the tub. Films will wash better in ten minutes in this manner than an hour in a basin of water which runs in and out the top. Small strips of wood fastened to the bottom adapt the trough to plates.

If the worker feels he cannot afford a printing machine, a double socket might be attached to the main tap, and the electric bulb for exposing screwed in one side, while the ruby bulb attached on the other. Then the large bulb can be partly unscrewed to turn off and on the light.

For a dark room lamp, one of the best I know is the Brownie safe light lamp, sold by Eastman for a dollar and a quarter. Candle and oil lamps are not to be recommended if electricity is obtainable. Flashlights may be covered with caps of ruby fabric, and then make a portable and efficient dark room lamp.

If a table cannot be provided a wide board may be placed across the bath tub and the trays placed thereon. Take the precaution to run a few inches of water in the tub before proceeding, in order that any solutions which you may accidentally spill will not affect the tub and get you into trouble with the hotel authorities or the household.

Drying sometimes causes trouble, which may be avoided by the use of alcohol. After thorough washing, place the plate or film in a tray of denatured alcohol, and allow it to remain for ten minutes. Then remove and whirl it around for a few minutes in the air, and it will dry very quickly. With films the action is not as quick as with plates, owing to the gelatine coating on the back, but they dry fairly quickly. Films or plates should be thoroughly washed before using, or an insoluble precipitate will form.

Long washing may be avoided by the use of an eliminator, as Hypono, but water is the cheapest and most satisfactory method.

An improved support for a small plate or film camera may be easily made from a pointed stick which may be stuck in the ground and the camera attached to the top by one of the many clamps supplied. When not in use, the stick may be used for a walking cane and for climbing.



IN A LAND OF ROMANCE

By John Whitehead, Alva, Scotland

Argumentum ad Crumenam

Oh, the brooks are calling and the fields
are green

While the town is a dull and boring
prose,

So I'd like to leave my work I ween

And desert the grindstone that's at my
nose.

My nose is useful in that way

And I'm attached to it, but say!

The constant grind is hard on both

That nose and me, so I'm nothing loth

To fly to the brooks and the meadows
green,

Away from the town and its boring
prose,

Where the world has something more I
ween

Than a grindstones' whir and a busy
nose.

But another organ I possess

That's more important, I confess.

My stomach thrives while the wheel goes
round

And waxes fat as the nose is ground.

So I guess I'll forego the verdant fields

And stay awhile where the grindstone
yields

Clothes to wear, and may I say,

Best of all, three meals a day.

Sigmund Blumann

Enthusiastic Amateur

With Photo by Samuel Adelstein

Samuel Adelstein, member of the California Camera Club, may be considered one of the lucky ones among amateur photographers; he comes and goes as he pleases and his camera is a part of him. Many will envy him, he apparently has nothing to think of but his hobby.

Quite recently Mr. Adelstein had a collection of seventy of his pictures on view at the Public Library in Santa Barbara and the attendance was most flattering. The artists of the community gave unstinted praise to his work. It was through their solicitation that these pictures were brought together for public exhibition which was pronounced a great success.

Mr. Adelstein takes all his pictures with a $3\frac{1}{4} \times 4\frac{1}{4}$ Ensign Reflex Camera equipped with a Carl Zeiss Tessar I c lens, and like so many photographers these days has recourse to enlarging. For this purpose he uses the Verito Soft Focus lens, and most of his prints are made on Artura Carbon Black paper.—E. F.



SENTINEL OF THE ROCKS

OUR WILD FLOWERS

Kindly Contributed by Our Readers

XVIII. SWEET WILLIAM

(*Phlox longifolia*)

An attractive wild flower generally of a deep pink shade, to be found in many places in the hills and valleys as far east as Colorado. The patch

of bloom here shown was photographed at Spokane, Washington, in its natural surroundings with no attempt at arrangement. The stalks are usually from six to ten inches tall and are clustered with flowers from spring to autumn. The color effect is gay and charming, particularly when growing in large clumps in the fields or along the road side. The leaves are smooth or somewhat downy, stiffish, pale gray-green and rather harsh.

The negative was made with a Graflex camera and on Eastman film; no filter was used. Photo by W. Carter.



If you have knowledge, let others light their candles by it.

—Thomas Fuller.

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A Matter of Heart

A caller at our office, an excellent landscape photographer, asked us to explain why his work was not more successful in the photographic salons. The best we could do was to try and make it clear that he had finished his picture just at the point where he should have begun. There are thousands of photographers like this, excellent workers but only photographers. As this subject may interest others we will treat upon it here.

The chief object of the photographic salon is to encourage individuality. This means the individuality of treatment all through the work, not merely in the selection of viewpoint. It is quite possible to be on the spot with a camera when a particularly pleasing or striking effect is met in nature, but how often does this happen? It is the effect that we must secure, not merely a topographical transcript of nature; there enters the commonplace. For this reason, we have always advocated the study and practice of "control." It is the surest way of developing our imagination and that individuality, so essential. By control we do not mean the adoption of a different surface of paper. If the picture is inartistic on smooth paper, it will be equally so on a rough stock. The gulf between the artistic and the ordinary is so wide, it can not be bridged with a trick. The matter of surface will not help one if the work in itself is wanting. From what we have said we hope it is clear we mean an artistic and not a mechanical control.

The more we can exercise our imagination the better our work is for us; we get all the good out of it. How much imagination are we able to use when we select a view for our lens? The light and the lens is our master, but where do we come in? Only in the selection of our vantage point, and the time of exposure; beyond this, the average photographer does not go and that is the reason for the lack of success in salons, complained of.

For commercial work, it is not necessary the photographer should go further, granting that his technique is good. On the other hand, for pictorial rendering, the photographic artist will probably feel that it is right here his real work begins. His instinct tells him this portion of his picture must be accentuated and that portion repressed. All this is done with a definite idea, the result is controlled. Ask yourself, is not the work with a human heart in it more worthy of distinction than a print showing nothing but skill? It takes only skill to make a "copy," it takes a heart to make a picture.—E. F.

ART AND THE CRAFTS

A Department Devoted to the Encouragement of a Closer Relationship
Between Photography and the Fine Arts.

Wise Words From an Art-Critic and Artist

Note: To English pictorialists Mr. F. C. Tilney needs no introduction. His address given to the London Camera Club, of value to all who seek artistic expression, should be read in its entirety. We reproduce from the report in the British Journal of Photography some portions that seem germane to this department.—H. D'A. P.

When the photographer is an artist there is nothing to choose between him and a painter. They both look out on Nature in the same way. They feel and they know. And they know when others cannot feel, but only pretend to. The true artist can only see and feel in one way, and that is his own way. Be he painter or photographer he can only feel through his own consciousness; and the man that has to adopt the ritual of others as an outward credential when he has nothing within himself is he that cannot and never will make the true artistic demonstration.

Modern painting is, as we know, teeming with humbug that is all trick and observance without anything of the divine efflatus behind and within it. The teeming numbugs find it easy to pass for the real thing among those who do not know. The facility is due to modern journalism, which thrives only on stunts. Stunts make sensation. The humdrum of real art does not. Therefore the critics (pardon the misnomer)—I mean the penny-a-liners—boost he stunters and everybody is happy—except the artists.

The photographer when he is not an artist—and mostly he isn't—adopts the outward observances of the painters, both the stunters and the good sort, too. For not having the real Freemasonry of Art he finds it difficult to discriminate between the real and the sham. He finds, too, in

his turn that if he adopts the style of the Futurist or the Cubist he stands a chance of getting some recognition from the penny-a-liners.

One of the most regrettable tendencies of modern days is the tendency to teach the heresies of the painter stuntists to photographers as though they were the gospel of Art. I will mention a flagrant case.

One of the recent stunts of decadent painters is the flat-surface stunt. The argument advanced is this: A picture is a two-dimensional thing. Very well, then it shouldn't represent things as three-dimensional. Was there ever such foolery? We paint things that have height and breadth and depth; but we must always remind the spectator that the picture surface has only height and breadth! Where is the abject idiot who wants reminding of this? Who looks at a landscape and attempts to walk into it?

This is a piece of flap-doodle evolved by painters who had not the three-dimensional sense, could not make things appear round if they tried, and had not the skill to represent distance between vertical planes. These unfortunates have made a virtue of necessity by adopting the method of one kind of poster—the kind that employs flat tints, no modelling and no cast shadows. The fact that this method was opposed, not only to the practice, but to the great Art-objective of all the ages was a fact that the critics could spread themselves upon, so the critics—you know the pernicious few—hailed this confession of weakness as a heaven-sent inspiration. All are from antiquity onwards, with all the long galaxy of great names—Pheidias, Donatello, Angelo, Raphael, Veronese, Rembrandt, Rubens, Claude, Hogarth, Reynolds, Turner—all these were wrong; poor feeble ones who had bruised their wings

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and bashed their heads against a three-dimensional fallacy. It was left to twentieth-century ingenuousness to light upon the true idea—flatness.

In their ignorance these advocates of this idea have cited Velasquez and Whistler as anticipating the sublime vision of flatness—Velasquez, the man above all others who painted the ambient enveloping a figure, whose Admiral—the favorite example of the advocates—surprised Philip IV into mistaking the picture momentarily for the Admiral himself. These critics cannot see that the flat tones of the black costume in this work are the true impressions of a figure standing in space—depth. They cannot see that Whistler, an arch-stuntist himself, for all his genius, painted in the same flat Velasquez manner without arriving at anything like the relief of his great exemplar; that Whistler's flatness was a mannerism borrowed from Velasquez' truth and mixed up inextricably with the decorative formulae of Japanese art. What slim arguments these two painters afford for the theory that pictures should be painted in such a way as not to cause the spectator to forget that a canvas or a sheet of paper is a flat thing of two dimensions.

This trick is being taught to photographers. Now, if there is one quality in which the photographic picture excels it is the three-dimensional quality. Without going so far as stereoscopic relief, we can find in any well-executed photograph a convincing evidence of the depth—the near and far—of the thing it represents. Yet photographers have been enjoined by certain teachers to endeavor to eliminate this, the great strength of photographic representation, and to impart to their prints that flat feeling which they suppose Velasquez tried for and which they believe was the characteristic that revealed the brilliant genius of Whistler. Everybody knows that roundness and relief have been the soul of pictorialism, and, in many epochs, of decorative work also. The Renaissance artists revelled in it. The eighteenth century ornament of the French masters in engraving—little known popularly, but unsurpassed in masterly strength and grace—has roundness as its

sheet-anchor. The old masters, the French Impressionists, the English Water-Colorists—every great school, in fact, sought first and last to give that true dimension relief that is the joy and wonder of normal human vision. Indeed, the Spanish and Italian Baroque painters overstepped the mark, and sought illusion—a case of extremity where virtue becomes vice; but that is only another argument for the instinctive desire that art should be founded on Nature and not upon some thin-spun and addle-pated theory of a few incompetent decadents.

The great cure for all this wasting and effete arti-ness is to court Nature. I have always enjoined photographers not to look at each other, but to look at Nature. Further, I have recommended them to study the great masters of the past; not of the present, because the great and the feeble are mixed up in the present. The feeble have not yet been eliminated by time, and the average photographer is not able to detect and throw off bad influences.

I say again, let us seek inspiration from Nature, our methods of interpretation from Nature. Be ourselves as Nature can make us. We may produce altogether new and perhaps, at first, fearsome things, but if Nature has prompted them they cannot be inherently bad.

The man who picks up tips from other workers and can suggest no tips for himself is a parrot, who speaks without knowing what he says—and mostly he swears. He is a man who wants to learn how to make "pattern" by rote. But pattern can only be felt. He is eager for a short and royal road to effective light and shade; but that must be first a matter of his own admiration. He tries to achieve tone-values by recipe; but tone-values are only apprehended by the loving and lingering eye which dwells and dotes upon the phenomena of Nature.

Such is camera art, and such it has been for a quarter of a century, and, so it seems, it will remain; for it is, for the most part, a playing at art. A nice game of making pictures—like crystoleum painting, "and pen painting," and all the other hobbies that support home industries.

The teaching that the pictorial photog-

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rapher is in need of is that which will enable him to see. It is not necessary to remind this distinguished audience that there is seeing and seeing. Many go out and look about them and believe they are seeing. But they are not. Not one out of a hundred has any glimmering of artistic vision. They may be able to compose quite agreeably, but as to apprehending the magic of beauty in Nature, the keenness of the light, the depth of the sky, the quality of the appearances of things—this is an accomplishment only too rare. Yet it is this power of seeing that results in fine pictures—and this it is that must be learnt; not picture-making by rule—that is either a mockery or crass commercialism.

Once a man understands the esperanto of art—and he can converse by nods and winks with others who know the language—a word is enough between true artists; argument and explanation are quite unnecessary. When a photographer has learnt it, he, too, makes pictures, out of his knowledge and feeling; not by acquiring the trick by mental pilfering from the works of others. His works are, once he has learnt the language, works of art.

Why should not the mass of photographers rise to this? Why should they not attain to the true vision and feeling? Could they do so, there would be little risk of their producing mannered work, aggressive designs, shrieking silhouettes, jazz patterns, false tonality, anomalies of light and shade, and "beautiful facts." Above all the supreme sin would be washed away—the effect of thunderous gloom which shrouds the enlargement, the bromoil and the oil print. We should more often see a healthy and naturalistic length of scale, fewer specimens of that mechanical harmony of tone which comes automatically from keeping all tones of nearly the same strength. A ruse of safety for those who cannot manage contrasts. We should see something of the character and power and beauty of form in skies instead of the nondescript light patches that are proffered for clouds in bromoil prints. The

best skies occur in the under-exposed views of the beginner. If the bromoil worked from what he knew and felt instead of what he swanked, he would not ink up his shadows in a wrong order of gradation, so as to mix up his planes. Nor would he be blind to nobility of subject. He would not, for example, find in our splendid streets, with their gorgeous largeness of tone-schemes, their sparkle and quality, nothing to inspire him but the wheels and axles of motor-buses. He would give the iron bridge a rest, with its black and straight girders. He would suppress the eternal pierrot and ballet-dancer. He would, indeed, see that arresting subject-matter is no help to quality, but rather a hindrance to artistic attractiveness; for great art makes sublime the commonplace.

It is this inspiration alone that can quicken pictorial photography, and put it as it should deserve, on the level of the graphic arts. The inspiration is impossible without sensitiveness to beauty; and as all beauty is based on principles that are found in Nature, the photographer must cultivate Nature before he cultivates Art. To proceed the other way about, as is now done, is futile. Art is understood automatically when we apprehend beauty in Nature, for Nature teaches the principles of Art and drives us to pictures. Responsiveness and sensitiveness must be developed; and this can be done by systematic training of the eye. At least, that is the common phrase; but, of course, it is not the eye at all; it is the training of the mind to adopt a certain and peculiar attitude towards natural phenomena. But this is quite a different thing from what is understood by an art education; it is, in reality, a general education—directed towards the peculiar psychological culture that is characteristic of the true artist.

You will think that I have been presumptuous and aggressive. I offer neither denial nor defense; for it was my intention to stir you to a discussion.—F. C. Tilney, B. J. of Photography.

A PHOTOGRAPHIC DIGEST

Edited by H. D'Arcy Power, M. D.

Practical Stereo Photography of Small Objects

(Continued from August)

	x	n	Object width	Object distance	Camera exten- sion	Print width	Lens separa- tion	
{	(1)	12	1	7.5	12.5	3.12	1.88	2.25
	(2)	16	1	10.0	15.0	3.0	2.0	2.33
{	(3)	16	2	5.0	8.75	3.5	2.0	1.16
{	(4)	20	3	4.16	7.5	3.75	2.08	0.8
{	(5)	36	5	4.5	7.5	3.75	2.25	0.5
{	(6)	20	1	12.5	21.0	3.5	2.08	2.38
{	(7)	36	1	22.5	33.0	3.3	2.25	2.47

Examples 3, 4, and 5 will show how completely the realization of these results will depend upon the eyes. In these three cases the scale of the prints is almost the same; in 4 and 5 it is identical. The prints only differ from each other in width, which determines the convergence of the eyes, and in the amount of perspective change between the left and right views. If the observer has to adjust the focus of the stereoscope to suit his sight, and not to suit the image—and this of itself will indicate defective vision—there is very little left by which he can judge. But the optical facts put before him will be accurate, and whether he realizes it or not, the image he sees is that which the worker sought to produce: the *technique* will be correct. Nos. 1, 2, and 3 should certainly be successful. No. 4 is doubtful. No. 5 may be regarded as an attempted *tour de force*, intended to test the space limits to which enlarged images of this kind can be successfully projected, and probably to show that these limits have been passed. The taking of No. 5 will give very little trouble, as the camera adjustments and distance are the same as No. 4, and it is hoped that the experiment will be made. In general, enlarged images will only be called for at near distances, and it will be seen later that by the use of a shorter focus lens any degree of magnifi-

cation can be obtained and the image brought close to the eyes.

It will be quite a different matter, however, when naturalized images of familiar objects are projected to these distances of 20 in. and 36 in., or even much farther than this; for then the mind can at once recognize what is presented and verify its impressions. Nos. 6 and 7, to be taken with a 3-in. lens, are arranged to correspond with Nos. 4 and 5, but the images are not enlarged. A natural history specimen would make a very suitable object in these cases. The inclusion of a section of an inch rule, graduated clearly, but not too closely—say, into eighths of an inch—would greatly assist the judgment when the image is to be natural size; but this would be quite fatal if the image is to be enlarged. In the latter case a reduced

scale rule $\frac{1}{n}$ natural size should be attached to the object to be photographed, so that in the image (magnified n times) it will appear in its true dimensions and serve as a guide. In No. 5 a 1-5 scale rule should be used, and it may be useful to point out that this can be obtained at the same time that No. 2 is taken, as the negative here is exactly on a 1-5 scale. A little ingenuity will enable the worker, by incorporating the image of an inch rule on some waste portion of his negatives—say, on the edge or bottom that is to be cut away—to provide himself with a series of rules of various proportions which will be available for this purpose when magnified images are to be obtained. This dodge for assisting the judgment would seem to be legitimate, and may be found to be necessary.

The accuracy of a suggested procedure can quite satisfactorily be tested by finding out whether certain predicted bad results will follow any departure from it.

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What will happen if we use an entirely wrong lens for taking the negatives? The first effect will be that *object distance* and *camera extension* will vary directly in proportion to the focal length. As regards the image, its *depth* will vary inversely to the focal length; its width, height, and distance will remain unchanged. If a 5-in. lens is used for examples 1 to 5, the depth in every case will be only half what it should be—a fully drawn-out concertina will appear half closed. If the 2½-in. lens is used for examples 6 and 7 the depth will be increased by one-fifth. Any lens whatever may be used in any particular case, but only one lens will give an absolutely correct result. This note is added for the benefit of those who wish to try the method, but who may not find it convenient to procure special lenses for the purpose.

The examples just given will probably serve to show that the task of photographing small objects is simplified, rather than made more difficult, by the adoption of this method. The erection of the verticals at a measured distance apart fulfils the same purpose as the drawing of a line of measured length, which is usually the way recommended for facilitating exact reproductions to scale. Further, the photographer can always supply himself with the exact *object distance* and *camera extension* whether he uses the correct lens or not, and the tedious necessity of repeated experimental focusing is thus entirely avoided. We have yet, however, to discover the working formulae that will make him master of the process.

The problem of stereo photography is essentially three dimensional, since the image is to have width, height and depth, but there is only one dimension with which we need now concern ourselves—namely, the *width*, measured in inches, of the image, the object, the negative, and the print. The last two we hope to make identical. The dominant importance of width will appear as we go on. Each plane of the image and of the object will also have its own *distance*; but we will choose one corresponding plane in each, which we will call *image distance* and ob-

ject distance respectively, upon which to build our formulae. By carrying over two simple working principles from the previous investigation the other dimensions and distances will be correctly rendered without further attention on our part.

The photographer sets the problem and supplies particulars of what he wishes to be done; the stereoscope determines the conditions of success, and lays down certain limitations; the camera lens, like an obedient servant, merely takes its orders and obeys them. Let us formulate in due sequence the data we get from these three sources; we can then set about unifying them and reducing them to their simplest form.

The photographer wishes to produce images at a variable distance x , and on a variable scale n with regard to the original objects. Therefore, we have as our starting points:—

Image distance = x . *Image width* = n times *object width*,

$$\text{or } \frac{\text{image width}}{\text{object width}} = n \text{ (Ratio 1).}$$

This will be a convenient place to take note of the two working principles just referred to. They are (1) that if the image is to be n times the object and at a distance x , then *object distance*—the distance of the object from the camera lens

—must be $\frac{x}{n}$; and (2) that *lens separation*—the separation of the camera lenses when taking the left and right negatives—must be $\frac{S}{n}$ where S is the normal eye separation, or inter-pupillary distance. With the introduction of this quantity S , which will be dealt with in its proper place, we depart from the possibility of strict mathematical precision, but not from that practical accuracy of result which is all that we require.

The above two principles may be set down in another form in which they may perhaps more readily commend themselves to our judgment:

When *image width* = n times *object width*, then *image distance* = n times *object distance*,

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$$\left. \begin{array}{l} \text{and separation of view-} \\ \text{ing points,} \\ \text{i. e., eye sep-} \\ \text{aration.} \end{array} \right\} = n \text{ times } \left\{ \begin{array}{l} \text{separation of} \\ \text{taking points} \\ \text{i. e., lens sep-} \\ \text{aration} \end{array} \right.$$

Theory here becomes categorical, and declares this to be the only way in which correct perspective, correct size and correct distance can be secured in the image.

We now turn to the stereoscope to see upon what conditions it is willing to accept, and how far it is able to solve correctly the problem proposed to it by the photographer.

When a photograph is examined through a small magnifying glass, such as would be used in a stereoscope, there is, in spite of the obvious change of size, a strong inclination to imagine that we are still looking at the photograph itself. (It may be noted that this obsession, due to our previous knowledge of the actual nature, size and position of the object we are examining—knowledge which has been verified by touch as well as by sight—is one of the gravest obstacles to the realization of the stereo image; it plainly indicates how imperative is the necessity that the image should be separated out from all other sense impressions, and given an existence of its own if it is to produce its full effect.) But if the lens is moved to left or right in front of the eye, the view is seen to move sharply in the other direction. We are therefore no longer looking at the photograph but at its image projected back to a greater distance. It is a fundamental principle of optics that the image of any point thus viewed through a lens lies on the right line connecting the point with the lens center, and remains in a fixed position as long as the point and the lens remain fixed. Again, if the lens is held steady and the eye is moved from side to side behind it, the image is seen to pass across the field of view in the same direction as the eye, just as stationary objects outside a window seem to respond to the movements of an observer within: there is no real movement of the image. This fact, that the position of the image in space depends upon the relative position of the lens and the photograph, and is inde-

pendent of that of the eyes, is very convenient for our present purpose.

An elementary optical formula tells us that if the image of a photographic print is to be projected to a distance x from the center of a lens of focal length f , the print must be placed at a distance y from the lens center which is given by the

equation, $\frac{1}{f} = \frac{1}{y} + \frac{1}{x}$; and that the size or

width of the photograph will be to that of the image as y to x . From the first of these expressions we can easily find that

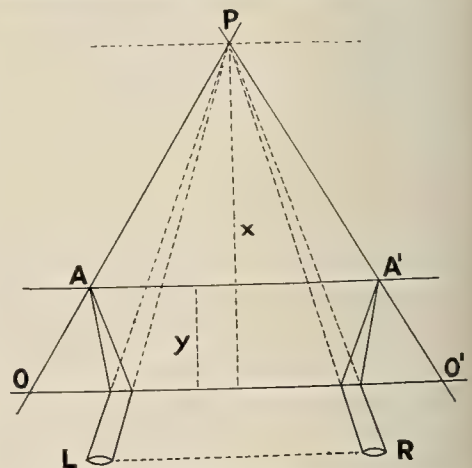
$$y = \frac{fx}{x+f}, \text{ and that } \frac{y}{x} = \frac{f}{x+f}.$$

We have therefore:

$$\frac{\text{Print width}}{\text{image width}} = \frac{y}{x} = \frac{f}{x+y}. \quad (\text{Ratio 2}).$$

The troublesome variable y can thus be got rid of from the working formulae.

Let us suppose, Fig. 1, that a stereo print has been successfully prepared and placed in position in a stereoscope, of which O and O^1 are the lens centers. For the sake of clearness the angles and displacements in the figure are greatly exaggerated, and the lenses are only indicated by their centers. The distance OO^1 then represents the separation of the lenses, and the line through O and O^1 the plane of the



L, left eye. R, right eye. O and O^1 , centers of left and right stereoscope lenses (lenses not shown). A and A^1 , corresponding points in left and right stereo prints. P , point of image.

Width of prints AA^1 is determined by OO^1 and x .

Perspective of prints is determined by L R , i. e. the prints must be such that when viewed from L and R they give correct perspective.

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stereoscope. Let A be a point in the left print, and A^1 the same point in the right print—representing, say, some prominent marking in a butterfly's wing. The line through A and A^1 will then represent the plane of the prints, and the distance AA^1 will be the distance between the corresponding points in the two prints. The image of A will lie somewhere along the line OA , and the image of A^1 somewhere along the line O^1A^1 . The condition of success is that the image, in each case, should coincide with the meeting point P of these two lines. P will then be the position of this point of the image, no matter where the eyes, L and R , are held behind O and O^1 . The figure makes it plain that, although the light in each case starts from the points A and A^1 , it *really* enters the eyes as from the point P , and that the eyes are focused and converged upon this point as in nature. The point P must also be at the vertical distance x from OO^1 , this being the chosen distance at which the image is to be situated. A line through P parallel to OO^1 will then represent the plane of *image distance*. Finally, the whole image must be correct in size and perspective, not only for points lying in this particular plane, but for those in all other planes, whether in front of or behind it.

The separation AA^1 is constant for all points that are to be projected to the distance x . It is clear, therefore, that if the prints as trimmed for mounting are wider than AA^1 they cannot be properly placed in position. Either the inner edge of one print will overlap the other and cover it up, or if they are placed side by side the distance AA^1 will be increased and the whole of the resultant image displaced. The fact that the prints must not extend to a greater width at their outer or free edges may appear puzzling, but it is a rule well known to stereo workers that nothing must appear at the outer edge of either print which does not appear in the corresponding inner edge of the other. The distance AA^1 , therefore, represents the full *print width* available in any case, and it is of the greatest importance that we should know its exact value, that we should be able to obtain it without difficulty, and that it should be automatically

recorded on the negatives at the time of taking. The mere mechanical trimming of the prints to size by no means makes it certain that the contents of the prints will be correct or that corresponding points will be properly spaced.

It is easily seen from the figure that

$$\frac{AA^1}{OO^1} = \frac{x - y}{x} = 1 - \frac{y}{x}$$

Substituting the value of $\frac{y}{x}$ given above, and simplifying, we have:—

$$(a) \text{ Print width } (AA^1) = OO^1 \frac{x}{x + f}$$

We saw above, Ratio 2, that

$$\frac{\text{print width}}{\text{image width}} = \frac{f}{x + f}$$

Substituting in this expression the value of *print width* just found, and simplifying, we have:—

$$(b) \text{ Image width} = OO^1 \frac{x}{f}$$

Since *image width* = n times *object width*, we have, from (b):—

$$(c) \text{ Object width} = OO^1 \frac{x}{nf}$$

The expression (b) shows that the possible width of the image varies directly with x , and inversely with f . The stereoscope chosen should therefore have lenses short enough to give images of reasonable width for small values of x , but not so short as to increase the worker's difficulty in taking the negatives and securing precision in his results. The separation OO^1 of the stereoscopic lenses also directly controls the width of the image, but as it is necessary that the eyes should be more or less centrally situated behind the lenses so that they may have an uninterrupted view, this separation should be made small. These and other considerations led the writer, for the practical purposes of this article, tentatively to recommend the stereoscope already described, having 4-inch lenses, with a separation of 2.5 inches. The angle of view of 36 deg. from side to side given by this stereoscope seems quite as wide as is desirable from either the technical or artistic standpoint.

—H. C. Browne, B. J. of Photography.

THE AMATEUR AND HIS TROUBLES

Conducted by Edgar Felloes.

A Concentrated Developer for General Use

[In the following article from "The Australasian Photo-Review," Mr. Edgar H. Booth, M. C., B.Sc., Lecturer in Physics in the University of Sydney, tells how to make up a concentrated developer for general use, and gives some notes on its employment.]

The majority of photographers, both professional and amateur, who have progressed beyond the elementary stages have passed through the period when they required to have upon their shelves at least half-a-dozen different types of developer, or the means of making them. It is an interesting pastime, and very instructive—practice in manipulation is never time wasted. But we may use one standard developer which will give all desirable control—and it is better to be thoroughly familiar with the one solution rather than to have a slight knowledge of the peculiarities of many.

When we decide on one single developer for nearly all our work, we require it to fulfil certain conditions:

- (1) It must not stain the emulsion, nor the fingers.
- (2) It must not cause chemical fog.
- (3) We must be able to control it, so as to increase or decrease absolute contrast.
- (4) It must be able to be manufactured and stored in highly concentrated form.
- (5) It must keep well.
- (6) The time spent in preparing working solutions from it must be short.
- (7) It must be equally useful for plates, slides, gaslight and bromide work.
- (8) It must be composed of chemicals which are readily available, and not expensive.

This is not by any means an exhaustive list of requirements, but it sums up those

that are of greatest interest to the ordinary worker.

Other important requirements, so far as the scientific worker is concerned, are that one must be able to push development without causing blisters or frilling, and that it must be capable of being standardized.

A developer which satisfies the above conditions, and which I employ both in the laboratory for technical work, and outside for general photography is given below; the prescription has been passed on to a number of workers, who have found it to be quite satisfactory.

It is a one-solution M. Q. developer:

	Metric System	Apoth. System
Metol	5.7 gms.	88 grs.
Hydroquinone	22.6 gms.	349 grs.
Water, distilled	415 c.c.s.	14.6 fld. oz.

Heat the water to 50 deg. C. (112 deg. F.), and dissolve in it the metol and hydroquinone.

Add Soda sulphite

(Anhydrous) .. 77.7 gms. 1,199 grs.

Stir for two minutes. This will produce a greyish-white precipitate.

Add Caustic soda

(pure stick)14.5 gms. 224 grs.

Stir until all the soda is dissolved. The white precipitate will then have disappeared. Filter rapidly, and store for use.

If it is intended to make up developer to last for over three months, small bottles should be used to hold it. We make up our "Standard M. Q." into 8-oz. lots. But we have tested a 16-oz. bottle, using 4 ozs. per month, the bottles, of course, being kept stoppered when not in use. The developer grew gradually browner, but the oxidation was apparently so small a percentage of the possible amount that at the

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end of the four months a series of experiments showed the same times for stand and tank development to be satisfactory, and disclosed a total absence of staining.

Another point of interest in connection with this developer is that it contains no bromide—from a scientific viewpoint the presence of a bromide in a developing solution must have the effect of reducing the speed of the plate or film. In some tests which we made with this developer, using plates speed H. and D. 270 at time of exposure, on development they were found to function as plates of considerably lesser speed, according to the amount of potassium bromide added. (Down to speeds comparable with H. and D. 50,) This is, of course, an indication of procedure in cases of known over-exposure. Details as to the quantities of potassium bromide to be added are given later. Naturally, the addition of a bromide in the case of plate or film development is not recommended merely to enable fast plates to be used as slow plates—it does not alter the size of the silver grain. It is recommended simply as a means of correcting an error.

The Watkins factors for this developer are:—For soft pictures 13, normal 15, contrasty 18.

As with the majority of developers, the best temperature for working is from 60 deg. to 70 deg. F. We have used it at temperatures up to 90 deg. F., but naturally only under compulsion. As it is a developer with a caustic alkali, the rule should be to employ always a hardening bath if this will not interfere with subsequent work on the plate or paper—and if a hardening bath is not admissible, then not to develop at a temperature over 70 deg. F. The hardening bath employed is a saturated solution of potash alum, though the commercial acid fixing bath may be employed. Owing to a doubt as to the action of formaline on celluloid* the use of a formaline fixing bath is not recommended in the case of films.

The times for the following working strengths are for a temperature of 65 deg. Fahrenheit:

(1) Plates or Films—Standard M. Q. 1 part, distilled water 15 parts. Normal time of development, 4 minutes. For stand

development.—Standard M. Q. 1 part, water 31 parts. Normal time of development, 8 minutes.

(2) Bromide Papers—Standard M. Q. 1 part, water 15 parts.

(3) Lantern Slides—Standard M. Q. 1 part, water 15 parts.

(4)—Gaslight Papers—Standard M. Q. 1 part, water 15 parts, to which add 1 drop of 10 per cent solution potassium bromide per oz. of mixture for bromide effects, or 3 drops of 10 per cent solution potassium bromide per oz. of mixture for black and white effects.

The test paper was Velox Glossy Regular. The times given for plates and films depend, of course, on the plate employed—it is best tested by the user himself with the material with which he normally works. If a slow tank development is desired, 15 minutes, in a solution 1 part Standard M. Q. to 63 parts water at 65 deg. F. will be found satisfactory. For extreme contrast in scientific work we push development until chemical fog begins, so as to get as great a density range as may be practicable. If we desire even greater contrast, as in the case of some line work, then we employ a strong bath of Farmer's hypo-ferricyanide reducer until the shadows are clear glass, without the high lights having been appreciably attacked. This is done prior to hardening. Probably 90 per cent of our work may be done with the one developer—for after all the plate is only a means to an end, and M. Q. is fairly universally used for papers at present; so those photographers who do not care to go to the trouble of making up their own solutions are advised to keep to a single M. Q. developer, with which they may become familiar.

The only variations we make are the use of amidol, if we are to do much treatment of a particular plate and wish to avoid the use of the caustic alkali, and the employment of an M. Q.-Acetone developer where toned Velox prints are wanted direct.

For plates or films in cases of known over-exposure, add 5 drops of 10 per cent solution potassium bromide as above per ounce of the solution Standard M. Q. 1 part

water 15 parts. If considerable over-exposure is feared, the amount of potassium bromide may be further increased. Develop fully, and reduce if necessary.—Edgar H. Booth, in *B. J. of Photography*.

Oilgraph

Bromoil, the fascinating method of making oil pigment prints with a bromide print as a base, has never been thoroughly investigated by the chemical expert so as to reduce it to certainty in every phase of the process. Contingencies may arise to defeat even the experienced worker. In the event of a failure one can only try again and hope that the next time the print will be a success. The vagaries of bromoil cause many workers to fight shy of it. The process outlined below, for which I suggest the title of oilgraph, seems remarkably free from these defects, and has the additional advantage that for a number of similar prints it is considerably cheaper.

In oilgraph, as in the ozobrome and kindred processes, the presence of silver in the final base is not essential. It is sufficient for a piece of paper coated with gelatine to be kept for a time in intimate contact with a bromide print in the presence of a sensitising solution.

The following sensitiser is prepared: 10% solution of potassium bichromate, $1\frac{3}{4}$ ounce; 10% solution of potassium ferricyanide, $\frac{3}{4}$ ounce; 10% solution of potassium bisulphate, 30 minims; 10% solution of potassium bromide, $\frac{3}{4}$ ounce; 10% solution of chrome alum, 110 minims; water up to 16 ounces.

A bromide print is soaked in cold water for five minutes, it is then taken out and placed face upwards on a surface which is suitable for squeegeeing. A piece of gelatinized paper is immersed in the above sensitiser for two or two and a half minutes at a temperature of 60 degrees F. At the end of this time it is lifted out and placed, coated side downwards, on the bromide print. If the gelatinized paper is placed in a wrong position it must not be moved, as such an action will lead to the image being blurred. In this condition they are squeegeed briskly, a weight placed over them, and left for twenty minutes.

At the end of twenty minutes, the two papers are carefully separated, the gelatinized paper is placed in water at a temperature of 90 degrees F., and the bromide is placed in running water to be washed. After washing the bromide print it should be redeveloped, preferably in an amidol developer which is free from bromide.

After a few minutes, the gelatinized paper is found to be swelled up in parts; this will be easily seen if it is viewed aslant. It is then ready for the pigment.

Some oil pigment is spread very thinly on a piece of glass with a knife, and the usual bromoil brush is dabbed on it so as to take up a little of the pigment. The brush is then dabbed on a piece of glass so that the pigment is spread evenly. The brush is then dabbed on the gelatinized paper. It is waste of time to put a lot of pigment on at first, with the idea that it will save time. The dabbing action is continued, and as the picture grows, more pigment may be put on. If too much pigment is put on, it can be taken off by a hopping action of the brush on the part which is to be reduced. Great control is possible on the print: details can be suppressed, shadows strengthened, or broken shadows made up exactly as in other oil processes. If the pigment is too thick it may be thinned with one or two drops of boiled linseed oil. The best brushes should be bought, and either Rawlin's oil pigment or any good make of artists' stiff color may be used.

It will be seen from this description that the image is reversed, right and left, but in purely pictorial work this does not matter. In the case of enlargements the negative may be reversed in the carrier, while in the case of film negatives, they are reversed in the printing frame. The resulting loss of definition will be very slight and will not make much difference. Of course the image may be transferred to a suitable surface.

For the gelatinized paper either single or double carbon transfer paper will serve. So far I have used only Wellington platinum-matt bromide paper, but no doubt any brand of bromide or gaslight paper, may be used. The very rough varieties may

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present some difficulties, and for the same reason it is better to use fairly smooth transfer paper. In this process only one bath is necessary, in place of the three

If the bromide print after the removal of the paper is found not to be completely bleached, it must not be supposed that it is unnecessary to redevelop it. Such a course would only lead to loss of detail if any further oilographs were to be made from it.

After soaking the gelatined paper in the warm water, the surface moisture should be absorbed with fluffless blotting paper or a damp rag, and the print pigmented on a wet pad as in the oil process.—Alfred Shipley—*The Amateur Photographer and Photography*.

A Test for Fixing

We do not think that we are very far from the truth in saying that the fixing bath is among the things generally neglected by the average photographer who, so long as he gets no trouble from so doing, is inclined to make up the stock solution haphazard, without weighing, and in all probability uses the bath long after its action as a fixer is considerably lessened. Many a case of blisters, frilling, etc., can be traced to the use of too strong a fixing bath, particularly with some of the modern emulsions which are so finely adjusted that to depart very far from the makers' instructions and formulae is to invite trouble. Some time ago we were consulted as to why a certain batch of prints blistered, whereas others upon another make of paper at the same time and in the same bath exhibited no signs of the defect. Subsequently, it was shown that the fixing bath was actually twice as strong as recommended by the maker of that particular paper. Though hypo is cheap, many photographers are inclined to overwork their fixing baths, as a simple test will show. If a piece of

bromide paper is taken and placed in a sulphide solution as used for sepia toning, it will be found to turn rapidly to a dark-brown color. If it had been previously fixed and washed the sulphide would have had no effect upon it. Thus it will be seen that the worker has to his hand not only a means of testing whether a particular bath is still working at active strength, but by immersing a piece of bromide paper in strips, for various times, he will also gain an idea of the time needed for the fixing bath to perform its function with any particular brand of paper.—B. J. of Photography.

A Hardening Bath

Reading *Camera Craft* regularly provides me with many helpful hints and I am prompted to offer a summer suggestion that may prove useful to your subscribers.

One summer I made about 150 exposures in the Yosemite National Park, guided by the Wellcome Exposure Calculator and secured some fine results. All the exposures were developed on the ground; two rolls of 12 exposures each just before noon one day. Water was furnished from pipes exposed to the sun and as it was a very hot day I decided after development to try some Tabloid Alum and Citric Acid Compound for hardening the films. This was fortunate, for after fixing them I left the rolls soaking in the wash basin and went to lunch. During my absence the maid threw the water and both films on the ground back of the tent. I expected they would be ruined, but after washing the sand and dirt from them I was surprised to find that they were not even scratched. This was a valuable experience for me and I always carry a package or two of this hardener on all my summer trips.—C. R. Danielson, San Francisco, Cal.

The best efforts given to an employer are those for which the employee is not paid, those which arise from enthusiasm in the job.—Service.

FOR THE PROFESSIONAL

In the Interests of Commercial and Portrait Photographers.

Notes on the Carbro Process

The carbro process, eliminating as it does the need for an enlarged negative, has undoubtedly come to stay, and, worked methodically, the results are certain and can be repeated at will.

Though part of the manipulation bears a close resemblance to that required for the production of a carbon print, there are certain differences which may cause trouble and which are dealt with in the text.

It is assumed that the operations requisite for the production of a carbro print are known, either from the details published in the "British Journal," or from the pamphlet issued by the Autotype Co.

The basis of the process, the bromide print, is of prime importance, and the writer has yet to find a type which will not give good results if the right quality of print is provided, and both here and in the subsequent operations temperatures should be taken. A print which has received less than two minutes' development with a normal developer at 60 deg. F. should not be used.

A print a trifle on the dark side is recommended, though a normal print with rather longer between the period of squeezing on to the transfer paper and development will give good results.

Very excellent prints are obtained from weak negatives printed on the glossy contrasty paper so much used for press-work.

The chloro-bromide papers which give warm or brown-black tones will give excellent results if the print is first bleached in the usual ferri-cyanide and bromide bath used in sulphide toning, followed by complete redevelopment. To those who, like the writer, make the majority of their prints on this type of paper, the extra operations are well worth the trouble. The extra depth which is a feature of this

type of emulsion is an advantage, and the print should not be too dark. The best print which can be obtained from the negative is just right with this class of paper; and a rather longer immersion in the No. 2 bath, i. e., the bath containing formalin, acetic and hydrochloric acid is advisable, and here 30 secs. can be taken as the normal time.

One of the troubles which has been experienced has been a tendency for the high lights to wash up. A print should on no account be too hard.

As regards the solutions recommended by the Autotype Company there is little comment to make, except that the stock solution of potass ferri-cyanide, bromide and bichromate will in cold weather crystallize out to some extent as regards the bichromate, and, of course, failure will result if the working bath is made up in such circumstances.

During all the operations the temperature appears to be most important, and heavy blocked-up shadows lacking in detail will result if the solutions or the room in which the prints are worked are below 60 deg. F. It is as well to keep as near to 62 deg. F. as possible throughout.

Much modification of the print is possible by varying the time in the No. 2 bath, and this appears to be a point where improvement in the process is possible. The normal time of immersion, 20 sec., is too short, as an error of a few seconds is such a large percentage of the whole as to make a considerable difference.

The writer has not yet experimented with a modified bath, but one time to give an exact reproduction of the bromide with an immersion of, say 60 secs., would be sounder.

Care must be taken in placing the pigmented paper on the bromide to prevent

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slipping, or a double image may result, and a convenient method of obviating this is to lay a flat boxwood ruler along one edge of the plaster and hold it down tight while the remainder of the print is being squeegeed.

Special boards made with a folding flap to achieve the same results are obtainable.

When the pigmented plaster has been in contact with the transfer paper for 30 minutes—a shorter time is not recommended—the two are placed in water at 95 deg. F. This temperature is lower than is usual for carbon printing, and should be measured with a thermometer, while if the time the pigmented paper has been in contact with the transfer paper before development exceeds 30 minutes a somewhat higher temperature is advisable.

The development is usually quicker than with carbon, and after gentle splashing with water on the face to remove the bubbles which show on the deep shadows, the remaining pigment which is soluble can be easily removed by holding the print under water by one end and shaking it to and fro quickly.

Some trouble has been experienced, and this is not confined to the writer's efforts, in using old tissue which shows a tendency to pull up in the shadows when trying to strip the backing. This, even with pre-war carbon tissue, only occurs at times, and hotter water for stripping should be used; but the tissue now supplied by the Autotype Co. and labeled for carbros works so easily that it is better to get a fresh supply.

As regards the mechanics of the process, if one pigment plaster is immersed in the sensitizing solution (normal time three minutes), and after two minutes a second is put in, the two minutes intervening between the time when the first is taken out for immersion in No. 2 solution and the second is ready for the same operation, leaves just sufficient time for the subsequent operation of squeegeeing and placing the first print between waxed paper to be comfortably performed.

As 15 minutes is the time for contact of the plaster with the bromide print, it follows that five prints can be treated one after the other, but as the transfer papers

have to be wetted this is rather a rush, and it is better to be content with four. The fourth print having been completed as regards squeegeeing to the plaster in ten minutes, will be ready for its final home on the transfer paper after twenty-five minutes from the start. The first print is ready for development after 45 minutes—i. e., 15 minutes in contact with the bromide and 30 minutes on the transfer—so that 25 minutes having been expended up to and including the fourth print will leave about 20 minutes for a fresh batch to be started, and the earlier operations repeated, before the first print is ready for development. If therefore a second person can be employed for the simple operations of development and aluming, the process can be practically continuous for as long as is required, each print prior to development taking an approximate time of 6½ minutes.

The time of squeegeeing the tissue on to the bromide should be noted in crayon on the back, so that the correct time for contact can be maintained. For those interested in the bromoil process it is worthy of note that a print from which one or two carbros has been taken, and which has been redeveloped and dried, is in a specially suitable condition for this process and will usually be found to pigment exceptionally well.—A. H. Hall, B. J. of Photography.

A Simplified Ozobrome Process

Mr. H. Flower then read the third paper, one by Dr. W. E. Bradley, entitled "The Carbonisation of Bromides (a simplified Ozobrome Process.)"

The sensitising solution is made up as follows:—Take, of a 5 per cent solution: Potassium ferricyanide, 6 ozs.; Potassium bromide, 6 ozs.; potassium bichromate, 4 ozs.; water, 5 ozs.

The unsensitised tissue is immersed in this solution until limp. It is then drained and rinsed in clean, cold water, and transferred to a neutralising acid bath consisting of 1¼ oz. of a 10 per cent solution of hydro-bromic acid in 80 ozs. of water for about 60 or 80 seconds. The tissue and bromide print are brought into contact un-

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der water, and after being squeegeed are put under pressure for about 30 minutes.

To carbonise the bromide picture direct, transfer the sandwich to warm water, as in carbon printing, and wash off the soluble pigment. On the other hand, to make a transfer place the sandwich in cold water, and separate the prints. Squeegee the carbon tissue to the transfer paper, and place under pressure for half an hour, and carry on the process as before and in hot water. The bromide print will be bleached and can be re-developed. Alum, citric acid, etc., are not required in this process. Good results are, of course, only obtained by using good bromide prints.

—B. J. of Photography.

What You Can't Photograph

In the October number of "Studio Light" we published a warning against copying Naturalization Papers. A photographer comes back at us with the question, "How are we to know what we can and what we can't photograph?" As it happened, he had just photographed some naturalization papers, but was able to call in the prints and destroy them.

It is quite natural that the photographer should be worried about such matters when the penalty is a fine of \$10,000 or ten years' imprisonment, and ignorance of the law doesn't excuse the offense.

In the case of Naturalization Papers there is a law which specifically defines the offense. "Whoever shall photograph or in any manner cause to be photographed, any certificate of citizenship, etc." That is quite plain and there is no danger of a photographer flirting with a fine or imprisonment when he knows what constitutes the offense.

The other things that a photographer cannot lawfully photograph are fairly well covered by the following statutes:

"Whoever with intent to defraud, shall falsely make, forge, counterfeit or alter

any obligation or other security of the United States, etc."

"Obligation or other security shall be held to mean all bonds, certificates of indebtedness, National Bank currency, U. S. notes, Treasury notes, gold certificates, silver certificates, fractional notes, certificates of deposit, bills, checks or drafts for money drawn by or upon authorized officers of the U. S., postage stamps, revenue stamps and other representatives of value."

The above may not be quoted exactly, but it is sufficiently correct to cover the ground and define an obligation or security. Then comes the specific statute covering photographs:

"Whoever shall photograph or cause to be photographed or aid in photographing or in executing any photograph, print or impression in the likeness of any such obligations or other securities, except by direction of some proper officer, etc."

It is readily seen why the law is necessary when it is understood that photographs are an aid to the counterfeiter or forger. But be that as it may, the intent to defraud does not enter into the question so far as photographs are concerned.

Our advice would be, in case of doubt, don't take a chance. If you have no one who can give you authoritative advice don't accept a job of photographing any Government papers which might come under the classification of obligations or securities.

If you are called upon to photograph a deed, an envelope or document of any kind bearing a Government stamp it is a good plan to do as some photographers do: cover the stamp with a piece of paper cut to size, with the word "stamp" written on it. This indicates that the stamp is there, but you are not guilty of photographing it.—Studio Light.

Place a high value on yourself and then prove that you are worth it.

—King's Courier.

CLUB NEWS AND NOTES

Club Secretaries and others will oblige by
sending us reports for this Department

October Is Camera Club Month

In these days of "Days," "Weeks," "Months," etc., set aside for the special benefit of some person or organization, it is only fitting that the Camera Club should have a "period" and so the month of October has been set aside and designated by the Associated Camera Clubs of America as "Camera Club Month." The difference between the "Camera Club Month" and many of the other designated periods will be that the thirty-four organizations affiliated with the national association will use every effort within their means to provide a program that will be both interesting and instructive to every camera user in the U. S. A., whether amateur or professional without cost to them. Special weekly programs will be arranged so made up that the camera using public will be interested and will miss much to their advantage if they do not take advantage of the opportunity and visit the club or photographic society in their town or the one located nearest them. Exhibitions and demonstrations will predominate in the make-up of the interesting events. An especial appeal will be made to the amateur, he who pushes the button and lets the corner drug store "do" the rest. An attempt will be made to show these camera users that they are missing a tremendous amount of the real joy of photography by not doing their own work and mingling with others likewise engaged.

With the advent of the Camera Club and its complete facilities for photographic expression, the day of the bath tub and the kitchen sink, with their resulting mess, has long since passed. The Camera Club of today, in most instances, is oftentimes better equipped than a great many of the commercial photographers. This has been made possible by the co-operation of numbers. There are many Camera Clubs in

the United States that besides the dark room and printing room, also have enlarging rooms, lantern slide rooms, and fully electrically equipped studios. One organization recently bought a three-story and basement building and the members themselves have completely altered the building for their own needs. The first floor is devoted to a combination exhibition hall, library and meeting room, the second floor is composed of locker room, dark room, printing room and general work room, the third floor contains several projection (enlarging) rooms and a modern studio. The steward is located in the basement, as is also the commissary department. So far as our knowledge is concerned this is the only instance we know of where such pretentious quarters are maintained by a photographic organization composed for the most part of amateurs.

In spite of the fact that Americans are known to "try anything once," it is woefully true that there has been, until recently, a reluctance to become acquainted with the Camera Club. This condition has undoubtedly been due to the fact that the camera using public has been under the erroneous impression that these societies require an advanced knowledge of photography to entitle one to membership. Nothing is further from the truth than that impression. In fact there is every reason to believe that more than eighty per cent of the members of these photographic clubs learned the first rudiments of pictorial photography at the time of becoming affiliated with their organization. To correct this impression is one of the reasons for specifying a Camera Club Month, and attempting to interest the camera using public in the institution of the Camera Club which was created solely for their convenience and pleasure. England probably has more photographic organizations

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than any other country. Many of their societies have but small quarters in which they meet and discuss to their mutual advantage the various elements entering into pictorial photography. These small rooms, however, are the seed from which larger bodies will eventually grow. And so, here in America, many new Camera Clubs have been organized and are being fostered by the Associated Camera Clubs of America. The public is being educated to understand that the Camera Club is not existing solely for the advanced worker but is maintained co-operatively for the mutual advantage of its members who are interested in photography. This is especially true of the members of the A. C. C. of A. who are assuming efficient management and modern methods and equipment so that their members may follow their hobby under pleasant conditions and pleasing surroundings at small cost. The spirit of co-operation shown by the members of the A. C. C. of A. is commendable. Many of the more progressive and advanced clubs are showing the way to their less fortunate and newer associates in pictorial photography, oftentimes at considerable sacrifice to themselves in time and money. That is the spirit of the Association and all photographic clubs or societies in America which are imbued with the spirit to help "promote and cultivate the science and art of photography" in co-operation with each other are members. Any organization looking entirely for its own welfare does not and will not long continue as a member. This is clearly expressed in a motto used recently by the Association: "One for all—all for one—Let's work together." And so in this same spirit of co-operation October will be known in camera club circles as "Camera Club Month," a time when a special endeavor will be made to bring the camera using public to realize that the Camera Club exists principally for their convenience and pleasure. Mr. Louis F. Bucher, Secretary of the Associated Camera Clubs of America, will gladly put enquirers, without any obligations on their part, in touch with the Camera Club in their city if they will address him at 27 Franklin Street, Newark, N. J.—Associated Camera

Clubs of America, 27 Franklin Street, Newark, New Jersey, Louis F. Bucher, Secretary.

Pittsburg Photographic Society

This Society has elected the following pictorialists to "Contributing Membership" in the Pittsburg Salon:

Elizabeth R. Allen, Moorestown, N. J.
Henry A. Hussey, Berkeley, Cal.
W. C. & T. M. Jarrett, Pittsburg, Pa.
Myres R. Jones, Brooklyn, N. Y.
Sophie L. Lauffer, Brooklyn, N. Y.
W. W. Zieg, Pittsburg, Pa.

The Tenth Annual Salon will be held in March, 1923, at Carnegie Art Galleries, and the most striking pictures will appear in Camera Craft.

Chas. K. Archer, Secretary.

Elysian Camera Club Bulletin

Here is the latest of club bulletins, the copy to hand is Vol. I., No. 2. This is the mouthpiece of the Elysian Camera Club, located at 307 Washington Street, Hoboken, N. J.

The Bulletin is along the same general lines as other publications of its sort with one important exception. It devotes space to its "Scientific Research Committee." This committee undertakes to give information and invites members to consult it. No charge! We shall look forward with interest to this department, it can be made of real value to its members. We quote the following:

Report No. 5—Re: Eastman Super-speed cut film. Speed—About 600 H. & D. or one-half faster than the Graflex plate. Three times as fast as par speed portrait film or speed roll film. Quality—Of the finest. Orthochromatic though not listed as such. Wratten K1 filter recommended, with filter in position exposure will be the same as for regular portrait or speed roll film without filter. Gradations—Exquisite. site.

Pittsburg Salon of Photography

The Tenth Annual Salon will be held in the Galleries of the Carnegie Institute, Pittsburg, Pa., from March 2nd to 31st inclusive, 1923. The last day for receiving prints Monday, February 5th.

OUR BOOK SHELVES

Bromoil Prints and Bromoil Transfers

If we can judge from inquiries received with regard to the Bromoil Process, we should say there will be quite a demand for the Photo Miniatures Series Number 186, which treats on this subject in a popular way. There are several illustrations to add to the attractiveness of this little volume, and a very instructive picture is Polperro, Cornwall, the original of which is published on page 259. A study of this original will prove helpful to the student. The framed in fragment on the original, showing the part the Artist, Dr. A. D. Chaffee, selected for his enlargement, is particularly interesting.

The value of the Bromoil process is in the modification and control possible in the photographic picture. These points are fully treated and the experience of experts in the process are given. This treatise we believe is the only book published in this country on the subject, and we can recommend it to the student of this fascinating work.

Bromoil Prints and Bromoil Transfers, published by Tennant & Ward, 103 Park Ave., New York, price 40 cents.

Abridged Scientific Publications

From the Research Laboratory of the Eastman Kodak Company.

This volume gives in an abridged form the scientific papers published from the Research Laboratory of the Eastman Kodak Co., during the year 1919 and 1920.

The abridgments thus published have naturally been cut down somewhat from the original form in which the papers were published and readers who are interested in any special paper should not fail to consult the original source for fuller particulars and especially for more complete data. Vol. I is no longer available for dis-

tribution, therefore, the Eastman Kodak Company have included here in Vol. IV. a complete list of all communications with reference to their places of publication, as well as giving, for the first time, indexes of authors of subjects. Published by the Eastman Kodak Co., Rochester, New York.

"The Spell of the Rhine"

By Frank Roy Fraprie, S. M., F. R. P. S. Author of "Castles and Keeps of Scotland," "The Raphael Book," etc.

With many illustrations, of which a number are in full color.

Folklore, fable, history and romance follow the course of the Rhine from its rise in the heart of the Alpine glaciers of Switzerland to the shifting sands of its delta in the marshy plains and wind-blown dunes of Holland. Through its valley have flowed and ebbed the tides of empire, the commerce of the Indies. The Rhine has felt the pulse of human progress. Its cities and castles are testimonials of emperors and kings, popes and even mightier prelates, poets, painters, men of the ages. Thus its valley is rich in the imperishable race-memories of all the generations since history and legend began.

"The Spell of the Rhine" is a very human book; it recounts fact and fable, deeds of glory and of cruelty, the lesser with some of the most sublime moments of human greatness. The spell includes gleanings from little-known literature of the past and first-hand observations from the writer's own travels across its scene. Snow-clad heights, raging torrents, castle-crowned steeples; still, poplared blackwaters; broad-bosomed floods, crowded with commerce, are only a few of the thousand pictures.

The Page Co., Boston, Price \$3.75.

INTERNATIONAL PHOTOGRAPHIC ASSOCIATION

Officers of the I. P. A.

F. B. Hinman, President, Evergreen, Jefferson County, Colo.

Louis R. Murray, Chief Album Director, 927 Ford St., Ogdensburg, N. Y.

A. E. Davies, General Secretary, 1327 Grove St., Berkeley, Calif.

If there is no officer in your State, address the General Secretary.

Answers to inquiries concerning membership and membership blanks will be supplied by the State secretaries. Album directors are at present acting as State secretaries in such of their respective States as have as yet no secretaries.

John Bieseman, Director Post Card Albums, Hemlock, Ohio.

Lovic Meredith, Director Steroscopic Division, Ruppertstown, Tenn.

A. E. Davies, Director Lantern Slide Division, 1327 Grove St., Berkeley, Calif.

STATE SECRETARIES

California—A. E. Davies, 1327 Grove St., Berkeley.

Colorado—H. E. High, 1023 Champa St., Denver.

Idaho—Eugene Clifford, 902 9th Ave., Lewiston.

Iowa—Harry B. Nolte, Algona.

Kansas—H. H. Gill, Hays City.

Louisiana—Samuel F. Lawrence, 1754 Laurel St., Shreveport.

Mississippi—George W. Askew, Jr., 211 34th Ave., Meridian.

Missouri—J. F. Peters, Room 408, Union Station, St. Louis.

New York—Louis R. Murray, 927 Ford Street, Ogdensburg.

Oregon—F. L. Derby, La Fayette.

NEW MEMBERS

5193—Andrew S. Reekie, 7 Grey St., Devonport, Auckland, New Zealand.

3¼x4¼ and others, Velox of views of New Zealand, etc.; for snow scenes, beach scenes, animals and general. Class 1.

5194—Carl Stahlbrodt, 266 Gibbs St., Rochester New York.

3¼x4¼ and enlargements, Velox and Bromide of scenes of Rochester and vicinity, historical and of general interest; for good historical subjects and pictures of scenic value. Class 1.

5195—Lew J. Tyrrell, 1186 Ferry St., Eugene, Oregon.

Pictures of Pacific Northwest scenery, copies of art subjects and educational subjects; for the same and anything of general interest. I desire to exchange only lantern slides, plain, toned or colored. Class 1.

5196—Thomas C. Rumney, 36 Fuller Ave., Toronto, Ont., Canada.

2¼x3¼ and 3¼x4½, also 5x7 semi-matte, Azo and Smooth Cream Bromide, of gardens, buildings, general views and scenery; for gardens, scenery, general views and bathing girls. Class 1.

5197—Ernest Magee, McKenzie School, Monroe, New York.

4x5 to 8x10 of home and general portraiture, studies and views, outdoor life nature poses; for outdoor and home portraits. Class 1.

5198—W. H. Emery, Mexico, N. Y.

Post cards and views from my large collection of 4x5 negatives of landscapes, marines and home portraits, in all of which due attention is paid to composition; for anything useful as material or suggesting subjects for landscape painting, including figures naturally and gracefully posed out of doors. Good cloud studies especially acceptable. Will exchange with all who desire. Class 1.

RENEWAL

5004—Miss Lisobelle M. Robe, 738 6th Ave., San Francisco, Cal.

3¼x5½ mountain and view scenes of city and country; for mountain and landscape views or street scenes. Class 1.

CHANGE OF ADDRESS

1572—Harry E. Bishop, 816 E. 15th St., Indianapolis, Indiana.

(Was 1824 Central Ave., Indianapolis, Ind.)

2776—L. A. Sneary, Clearwater, Fla.

(Was 2822 Espy Ave., Pittsburgh, Pa.)

4363—Jonathan T. Welsh, 2317 Cortelyou Rd., Brooklyn, N. Y.

(Was 50 Fort Greene Place, Brooklyn, N. Y.)

4622—A. G. Cronacher, 1528 35th St., Sacramento, California.

(Was 1263 Elizabeth St., Kenosha, Wis.)

4676—W. C. Telford, Box 21, Tempe, Arizona.

(Was Phoenix, Arizona.)

4911—E. J. Darling, Lansdale, Pa.

(Was Perkasie, Pa.)

4997—Homer S. Wyatt, General Delivery, Black Mt., North Carolina.

(Was Waynesville, N. C.)

5035—P. S. Coluni, 230 11th St., College Point, New York.

(Was 153 Third Ave., College Point, N. Y.)

5084—Joseph P. Fuller, 623 W. Ave. 50, Los Angeles, Cal.

(Was T. & T. Bridge Gang, Stagg, Cal.)

5095—C. M. Cornish, 8752 113th St., Richmond Hill, New York.

(Was 12 Inman St., Cambridge, Mass.)

5173—Simon Zecha, General Delivery, San Francisco, California.

(Was 321 Broadway, Seattle, Wash.)

NOTES AND COMMENT

A Department Devoted to the Interests of our Advertisers and Friends
In it will be found much that is new and of Interest

While the notices under this heading are strictly in the nature of information and news for the benefit of the reader, and are neither paid for nor actuated by our advertisers, we are compelled by the Postal Laws to mark them as follows:—Advertisement.

Reported by William Wolff

Mrs. S. Pemberton (Sally) now has charge of the Kodak department of Frederick & Nelson, Seattle, Wash.

Mr. Wm. Richardson of Northwestern P. S. Co., spent the Fourth of July on board the U. S. S. California.

Mrs. Paffrath of Reno will be in San Francisco the first week of August.

Riverside Studio, Reno, is now owned by Mr. Schottner—reports very good business.

E. Pasque of Hollywood is now located in Reno, Nevada. Doing nicely.

E. T. Boaden, formerly with Eastman Kodak Co., has located in Pocatello, Idaho, and has one of the best equipped stores and dark rooms the writer has seen in many days.

Gordon Bennett of "Sandy's," Portland, Oregon, always wears a smile—must have got it from Sandy's advertisement—Service with a Smile.

Ed. O'Neil of Pike & O'Neil, is well and working just as hard as ever.

Hal Patton of Salem says 'Frisco knows how. He was here during the Shrine convention.

Baker & Button are doing a nice photo business in Eugene, with the assistance of two charming wives.

Learn Photography at Home

We have many inquiries as to schools of photography. We often meet with those who would like to join a school but various causes, principally distance and cost, prevent them from doing so.

Mr. H. R. Vant, Director, International Studios, Inc., advises us that the course of instruction is particularly intended for the benefit of those who wish to learn photography but who can not afford to drop the

work in hand for a visit to a distant city. These people must earn while they learn and it would be to the individual's advantage to secure particulars which will be furnished promptly on application.

In the circular that we received, we noted this paragraph from which we quote: "How long do I teach a student? Until he finishes the course and just as long afterwards as he needs help. The average student completes his course in about twelve months, but you can go as rapidly or as slowly as you wish."

Under heading, "Select your own plan of payment," we gather the following: "Our regular terms are as follows. you may select any of the plans that suit you best:

"\$15.00 first payment and then \$10.00 a month. \$20.00 first payment and then \$8.00 a month. \$30.00 first payment and then \$5.00 a month." There will be a reduction of 10 per cent if full amount of tuition fee is paid at the time of enrollment.

It would seem that these arrangements should meet every one's needs. For full particulars write to H. R. Vant, Director, International Studios, Inc., Dept. 109C, Michigan Avenue, Chicago, U. S. A. On another page of this magazine appears the announcement.—Advertisement.

An Improvement

J. L. Lewis, 522 Sixth Avenue, New York, announces that he has succeeded in fitting the Revolving Back Graflex Jr. with the six-inch Aldis F-3 Anastigmat. The lens gives very sharp, clear images, which bear great enlargement, and the fitting has been so made that other lenses may be used.

CAMERA CRAFT

Modern Photo-Finishing Appliances

We have received from the Northern Photo Supply Company a new catalogue which will be useful to any photo-finisher. In it is listed various up-to-date labor saving devices which should interest anyone in, or contemplating the equipment of a modern finishing plant.

This catalogue is very fully illustrated and will serve a useful purpose for reference. In it is included a "Good Developing Tank Formulae," if the one you use is not quite satisfactory in your hands, try this one.

Modern Photo-Finishing Appliances may be secured free for the asking. Address Northern Photo Supply Co., Minneapolis, Minn., U. S. A.—Advertisement.

Picture Post Cards

No one can ever guess the enormous demand for postal or picture cards. There is not a town or city in the world but supplies its quota of views to meet the demand created by the thousands on thousands of picture collecting people.

Raymond R. Carver, photographer, Ancon, Canal Zone, Panama, is one of the busy ones who specializes on pictures of this kind, having not only exceptional opportunities to secure negatives of interest of the Canal and its shipping, but also the Indians on the neighboring islands and their tropical surroundings.

Mr. Carver's announcement appears on another page of this magazine.—Advertisement.

School of Photography, Chicago Branch

The New York Institute of Photography, Berry F. Falk, President, has added a Chicago branch to their two existing schools, which are located respectively in New York City and Brooklyn. The Chicago School is at 630 Wabash Avenue.

President Falk takes pleasure in announcing the opening of this third school which is equipped with the very latest appliances for the benefit of students. The instructions comprise complete courses in Motion Picture, Commercial and Portrait photography. The Chicago branch will prove of great convenience to Western Students and they should address enquiries to the above address.—Advertisement.

The Camera Hospital

A new enterprise has recently opened in this city at 540 Valencia Street, by Wm. F. Peters and A. A. Zellar. They have installed all the latest equipment in the way of precision machinery and make a specialty of repairing and remodeling cameras and Kodaks; also the building of special accessories in connection with the photographic line.

Mr. Peters, who has active charge of the repair work, is well known, having been connected with the trade for the past twelve years in San Francisco. Besides this, he was two years in the employ of a leading camera repair house in Los Angeles. With his extended experience Mr. Peters has become familiar with every phase of camera repair and remodeling work.

Mr. A. A. Zellar is outside man and a salesman of wide experience who is associated with Mr. Peters in this undertaking.

The proprietors of the Camera Hospital, are determined to give the best of service both to the dealers and to the individual camera owners of this city and the adjoining districts.—Advertisement.

Clarence H. White School of Photography

This school will be held at Canaan, Connecticut, from July 3rd to August 25th, for Artists in photography. This is the thirteenth annual summer season.

Students are required to furnish their own cameras, plates, printing paper and chemicals. All other equipment is supplied by the school.

Tuition, 8 weeks—\$100.00.

Tuition, 6 weeks—\$90.00.

Tuition, 4 weeks—\$70.00.

Tuition, 2 weeks—\$40.00.

All fees payable in advance.

For further information address Clarence H. White, 400 W. 144th St., New York City.—Advertisement.

The Harrold Exposure Scale

The very latest exposure scale to reach our desk promises to be quite popular with photographers. It is of a very handy size and in its case it is no thicker than an ordinary letter and will fit the vest pocket. Besides the directions printed on the back of the scale, a small sheet of instructions are also provided with an explanatory dia-

NOTES AND COMMENTS

gram. With this as an extra aid, it will take you just about one minute to understand the whole thing, so simple is it.

The Harrold Exposure Scale is made of stout white celluloid and pivoted upon it are three colored pieces of the same material in pink, green and orange. The pink segment carries the months and description of objects to be photographed, printed upon it. The green segment registers the condition of light, and the orange circular disk carries on its face a list of the various makes of plates and films classified from A to K in their comparative order of speeds.

You need not look elsewhere for information. You are not bothered by tables. As soon as you have revolved the three colored pieces into place, your answer is before you on the white celluloid card. It is so simple.

You will see a cut of this exposure scale on another page of this magazine. Look up the Harrold Exposure Scale Ad. on another page, and you may examine the scale itself at Marsh & Co.'s store, 712 Market Street, San Francisco, where it sells for \$1.00.—Advertisement.

Camera Profits

There are a number of amateur photographers who are interested in ways to turn their photographic work to financial account. The trouble with many of these workers lies in the fact of their business ignorance, and not in the quality of their work. The instruction they need is not so much how to make good photographs, for many of them do that already, but what to photograph and where to market it. We have seen an enormous amount of effort wasted this way.

The Lancaster System concerns itself principally with teaching ways to make a market for one's self. It tells the student what is wanted and how to go after it. It is not what is understood as a school of photography so much as a school of photographic business. In its course of instruction the main idea is never forgotten, that is, how to get money out of that particular line of work. Those who might decide to follow this line of photographic endeavor will be surprised at its many ramifications, and those who specialize will reap the most good.

In a booklet entitled *Camera Profits* which may be secured for a postage stamp, the reader will receive all particulars about the Lancaster System, which consists of a carefully compiled series of instructions relating to the above subject. On another page of this magazine in the advertising section will be found the Lancaster announcement. Interested readers should address their communications to the Lancaster System, 409D Wright-Callender Building, Los Angeles, Cal.—Advertisement.

Feather River Canyon

F. E. Pugh, photographer of Las Plumas, California, has recently placed upon the market a very attractive series of six panoramic views of this beautiful canyon. Those who collect photographs of interest, and there are a host of such collectors, are not likely to find fault with this set. They are sharp clear views showing things as they are, a type of picture that appeals to the majority.

The photographs measure about 4¾ inches deep by 12¼ inches long and the price is 25 cents each, all different. Another offer is, six 5x7 views of the same canyon for \$1.00. Mr. F. E. Pugh is a steady advertiser in *Camera Craft*.—Advertisement.

Historical Tree Contest Attracts Unusual Interest

The prize contest for pictures of historical trees for which \$40 will be paid by the New York State College of Forestry, Syracuse, N. Y., has brought out according to the college many trees in the State distinguished for their historical associations.

The prizes offered are sufficiently numerous to give each person who submits a photograph of an historical tree now growing in New York State a good chance of winning a prize. Forty dollars will be paid as follows.

Ten dollars for the photograph of the most important tree; five dollars for the pictures of trees that rank second, third, fourth and fifth, and two dollars apiece for the next five ranking pictures—ten prizes in all.

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Pictures of historical trees have been sent in from Washington county, Schenectady, Westchester, Monroe, Wayne, Livingston, Rensselaer and Saratoga counties and Long Island. Several trees have been submitted from outside New York which are not eligible for prizes. The tree must be living and within New York State.

The contest will continue through the summer, so ample time will be afforded those who take pictures of trees between now and October to participate in the contest.

Mail the photograph with a statement of your reasons for believing the tree to be of historical importance. A beautiful booklet with halftone reproductions of winning photographs will be distributed to all participants in this contest whether they win prizes or not. Address The New York State College of Forestry, Syracuse, New York.

The Frederick & Nelson Salon, Seattle Washington

Pictorial photographers everywhere, whether of professional or amateur standing, are invited to enter their pictures for competition in the Third Annual Exhibition of Pictorial Photography which will be held in the Frederick & Nelson Auditorium from November 6th to 18th, inclusive, of this year.

Eighteen prizes will be awarded and as many "Honorable Mentions" as the judges may be pleased to award.

First prize, \$100.00; second prize, \$75.00; third prize, \$50.00; five prizes, \$10.00 each; ten prizes, \$5.00 each.

Entries for this exhibition will close October 10, 1922.

The New Gundlach Catalog

In the handsome new catalog just issued by the Gundlach-Manhattan Optical Company are described several new products in addition to the regular line of photographic lenses, Korona Cameras and Turner-Reich Prism Binoculars—this catalog is pictured in the advertising pages of this magazine. Notable among these new products are the Hyperion Diffusion Portrait Lens F-4, a diffused focus objective that gives unusually striking and satisfactory results. The Radar Anastigmat F-4.5, a lens with all the qualities necessary in a

high speed objective, viz., critical definition and a flat field at full aperture with a brilliant image—and the Improved Korona Folding Studio Stand, described in these columns recently.

This new catalog is liberally illustrated, and each article is described in a complete common sense way. The pages are set in simple, dignified type, easy to read, in short—this catalog has a place in every serious amateur's home—and in every professional photographer's studio.

Ask your dealer for a copy—or, if he has not yet received a supply, a catalog may be had by simply sending your name and address to the Gundlach-Manhattan Optical Company, Clinton Avenue South, Rochester, N. Y. Sending for this catalog places you under no obligation.

Entry Forms.

We wish to notify our readers who contemplate entering their pictures for the various photographic exhibitions that we have entry forms for the following salons, which we shall be pleased to send upon request.

The London Salon of Photography, the Toronto Salon, Canada, and exhibition labels for the Frederick and Nelson Photographic Salon, to be held at Seattle, Washington.

"Your Home Is Our Studio"

From the O'Neill Photo Co., of O'Neill, Nebraska, comes some photos of their road outfit. This outfit consists of two automobiles well kept up and shining. On the door of each is neatly lettered the firm's name and address also the following capital slogan, "Your home is our studio."

The letter accompanying the picture was interesting, we quote: "Am inclosing some photos showing the way we go to the towns, taking photos in the homes. Each of us can sell as many photos as the average studio paying \$100.00 per month rent. A complete road outfit, including the car, will only cost \$1000.00, photos can be finished at your studio or home."

The O'Neill Photo Co., do a good business in home portraiture. In this line they find The Portable Skylight, their own production, quite invaluable. A sketch of this very practical light is shown in their advertisement on another page. You are in-

NOTES AND COMMENTS

vited to write for literature and "How to Make Money at Home Portraiture."—Advertisement.

Moving Picture Stars

Many people are interested in portraits of the screen favorites and many like to have original negatives of these people. The Film Exchange, G 837 Bowery Street, Akron, Ohio, are in the business to supply this demand and they offer 50 negatives of these actors and actresses for \$1.00.

The films this Exchange is selling are negative films made on motion picture film stock. They are new, sharp focus and show pleasing poses. These negatives may be used to furnish photographic prints and are a source of pleasure to many.—Advertisement.

The "Salex" Review

The first copy of this Review has just reached our desk. It is intended as the house organ, to be published monthly, by The City Sale & Exchange, 81 Aldersgate Street, London, E. C. I., in the interests of Professional Photographers and Press-Men.

There are items of professional concern in The Salex Review and some good professional advice. There is a list of standard new apparatus and a few pages devoted to "This Month's Apparatus Bargains," and here we shall find an ever changing opportunity to secure something to meet our needs.

A copy of this publication will be forwarded readers of the above mentioned callings on receipt of their trade card.

Extension Division University of California

"I'd give anything to start life over again."

You hear that every day. The man who says it does not realize that experience is the only teacher of mistakes.

Profit by experience; profit by your mistakes. Find an ambition and make good at it.

Do you realize that education and training are open to you through the Extension Division of the University of California? The Division is starting evening courses in

San Francisco during August and September. Classes will meet once a week for a period of fifteen weeks. Instruction also may be had by correspondence. The fee is so nominal that it bars none.

Inquire further at the Extension Office at 301 California Hall, Berkeley, or 140 Kearny Street, San Francisco.

Southern School of Photography

Joseph S. Lively, who for a number of years was connected with the faculty of the Southern School of Photography of McMinnville, Tenn., and for the past few years operator in a number of leading studios of the country, announces he is again with "Daddy" Lively in the School, and will become an active member of the faculty.

A Knock-out Promised

Daniel J. Goff, inventor and owner of Goff's New "Area" Lamp which has proved so successful in motion picture and still photography, advises us he is now busy on a smaller model of this lamp especially constructed to meet the needs of the portrait-man and home-portrait worker. This new lamp will operate on either direct or alternating current, drawing but 6½ amperes and weighing but 45 pounds. This new outfit will be ready sometime this fall. Drop a line to Daniel J. Goff, 3159 Indiana Avenue, Chicago, Ill., if interested. Look up Mr. Goff's ad in this issue.—Advertisement.

Lindsay

Mr. G. Archer Lindsay is now "Road Man" in the interests of Howland & Dewey (Eastman Kodak Co.), 545 Market Street, San Francisco. Mr. Lindsay is so well known to Western photographers, both professional and amateur that this item of news will interest them. Those who knew him well will appreciatingly say, "The same old boy—he never changes," and there is more to this than just friendship. G. Archer Lindsay values the confidence of his friends, he has ever been careful not to forfeit it. What he says, is so; and in consequence he is welcome in any studio or camera club room he chooses to

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visit. He is always helpful, and amateurs look upon him as a "picnic," he is so stocked with formulae. We have known Mr. Lindsay for years and a mutual confidence has grown up which is appreciated.

Commercial Photo Business

Maurice S. Stewart, photographer, 470 13th Street, Oakland, has disposed of his business to Ford E. Samuel, commercial photographer of Alameda. Mr. Stewart has been established in Oakland since 1904, and Mr. Samuel may be congratulated on having secured this well known location. Friends of Mr. Samuel who are familiar with his high quality work are confident of a successful future for him and join in best wishes.

Second Annual Photographic Exhibition of The Emporium, to Be Held September 5th to 16th

Plans are practically completed for the coming Photographic Exhibition to be held at the Emporium from September 5th to 16th. Present indications point to an exhibition that will eclipse the very successful

one held last year. It will be recalled that about 1000 prints were shown in the exhibition of last season, these were sent from all points of the United States, and among the prize winners was one from the city of New York. It is expected that this year even more distant camera clubs and pictorial photographers will contribute.

Five judges have been chosen to select the prize winners from among the entries. The judges will be: Sigismund Blumann, John Paul Edwards, Carl Anderson, Edgar Felloes, William H. Clapp.

Entries for the exhibition must reach the Photographic Department of the Emporium not later than August 21st. All prints must be the original camera work (not copies) of the exhibitor. They must be suitably mounted on white or light toned mounts, which must not exceed 24 by 26 inches, and no prints smaller than 5x7 will be accepted. Framed pictures and colored pictures will be refused.

A special committee composed of Chas. A. Love, E. M. Tausig, J. R. Wilding, has been selected to supervise the hanging of all prints in the salon. The promoters of the exhibition desire that special attention be called to the fact that the action of the judges in their selections will be absolutely final.

Eleven Prizes to Be Awarded

Additional prizes have been added to the list for this second exhibition. The first prize is \$100, the second \$50, the third \$25, and three additional prizes will be awarded of \$10 each and five prizes of \$5 each. In addition to this, a special prize of a membership in the California Camera Club will be awarded.

Flash Powder Competition

Here is the reproduction of the prize winning picture in the May flash powder competition. Roland W. Reed, 1920 Atkinson Avenue, Detroit, Mich., was the successful competitor. Look up the particulars of the Meteor Flash Powder contests on another page in the advertisement of John G. Marshall, 1752 Atlantic Avenue, Brooklyn, New York.—Advertisement.



SAN FRANCISCO
PUBLIC LIBRARY

CAMERA CRAFT



SAN FRANCISCO
CALIFORNIA

FOR SALE

A FEW INTERESTING NUMBERS OF CAMERA CRAFT

On taking stock we find certain sets of back numbers that we can spare. We want to put these in the hands of readers who value CAMERA CRAFT and desire to carry their library into the past. For these reasons we quote prices that will immediately be recognized as below the value placed on the issues by collectors.

1906—One Volume

This volume consists of eleven numbers as the April number was burned at our printers in the big fire of that year and never issued.

1907—One Volume

1910—Ten Volumes

1908—Two Volumes

1909—Two Volumes

1912—Two Volumes

In addition we have stitched (without ads)
ready for binding:

February to December, 1908

January to December, 1909

January to December, 1910

January to December, 1911

Any of the above complete at \$2.50 each.

A package of twelve numbers of variant dates
at \$2.00.

Camera Craft Publishing Co.
Claus Spreckels Building, San Francisco, California



CAMERA CRAFT

A Photographic Monthly

Entered at the Postoffice in San Francisco as Second-Class Matter. Copyrighted, 1922, by Camera Craft Publishing Co.

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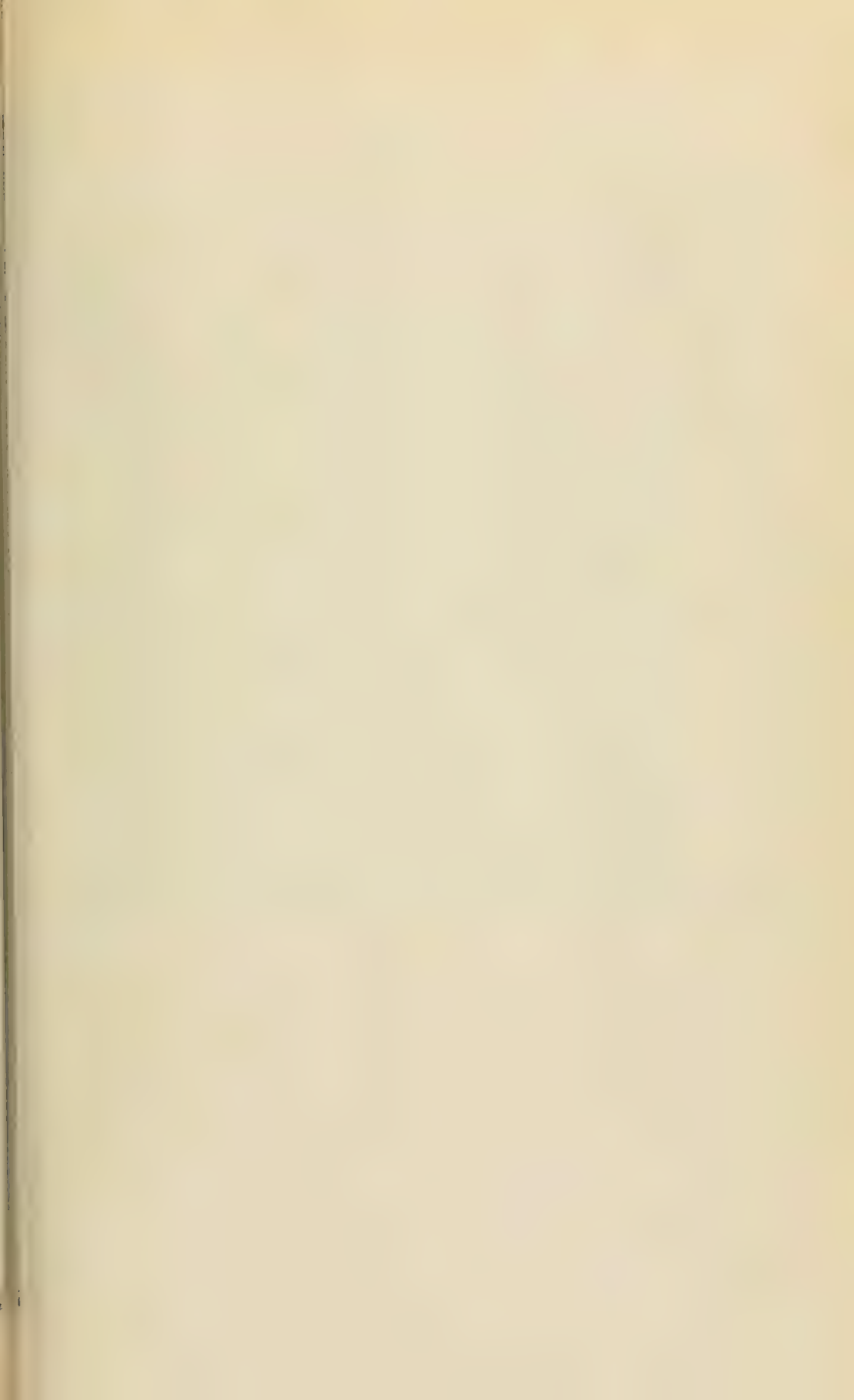
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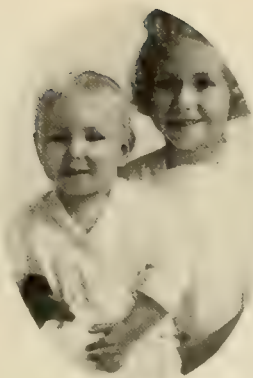
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From A BROMOIL PRINT
By LOUIS A. GOETZ
(See article)


CAMERA

CRAFT


A PHOTOGRAPHIC MONTHLY

H. D'ARCY POWER, M. D.
Editor-in-Chief

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EDGAR FELLOES,
Associate Editor
CALIFORNIA

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The Emporium (Second Annual) Photographic Exhibition

By Edgar Felloes



With Illustrations of the Prize Pictures

Many a young photographer and some old ones were particularly interested in September 5th of this year. It was on that day The Emporium Photographic Exhibition was to be opened to the public and as was natural some were doubtless anxious to know which of their pictures won the plaudits of the Jury.

There were a thousand competitive photographs sent in and The Emporium is to be congratulated on the large number of contestants and the high average of excellence displayed in the work exhibited.

To Mr. H. W. Boekenooen, in charge of the Emporium photographic department credit is due for this excellent exhibition; this popular manager has considerably extended his circle of acquaintance among photographers generally.

The following five gentlemen had agreed to serve on the Jury of selection: Carl Anderson, newspaper editor; Sigismund Blumann, efficiency engineer; W. H. Clapp, curator of Oakland Art Institute; John Paul Edwards, pictorialist and Edgar Felloes, associate editor Camera Craft. The Jury regretted that at the last moment Mr. Anderson was prevented from serving, it was therefore compelled to proceed with the work without him.

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This is a list of the successful contestants and the amounts of the prizes won:

First Prize, \$100.00 "Sanctuary," Anne Brigman, Oakland, Calif.

Second Prize, \$50.00, "Kitchen Sink," Margaret Watkins, New York City.

Third Prize, \$25.00, "The Jaw," Johan Hagemeyer, Mill Valley, Calif.

Fourth—Three \$10.00 prizes, "Low Tide," G. H. S. Harding, Berkeley, Calif.; "Surf Foam," Anson Herrick, San Francisco, Calif.; "Midnight Shadows," Holmes I. Mattee, Baltimore, Md.

Fifth—Five \$5.00 prizes. "October," Eugene P. Henry, Brooklyn, N. Y.; "Evening," Ida Kragewski, San Francisco, Calif.; "Portrait," L. A. Armer, Berkeley, Calif.; "On the Canal, Bruges," L. A. Goetz, Berkeley, Calif.; "Decorative Panel," Thomas A. Scheckell, Salt Lake City, Utah.

Special Prize, membership in the California Camera Club; P. Douglas Anderson, San Francisco, Calif., was awarded this prize on his picture, "The Open Gate."

The selection of the second prize picture has met with much criticism. In the public judgment it appears a picture has to stand this test: "Would I live with such a picture? a cluttered sink." And the consensus of opinion is "I would not." Sometimes the accent is on the I, and sometimes on the would not. This tempts one to believe that nobody who was anybody, would live with that picture and "bingo" goes the picture. The big jury, the public, has announced the little jury as non compos mentis, and one lady remarked, the jury of selection had proved itself in need of an alienist's attention.

For the sake of the kinder hearted and the curious, we are bold enough to attempt an explanation of some of the admirable points in the "Kitchen Sink." In the first place the artist had set herself the problem of arranging some familiar household articles, not in themselves interesting, but grouped in such a way to secure a pleasing combination or pattern founded on a geometrical base. It was the pattern the artist was after, and it was for the jury to decide whether she had succeeded and if so how well had she succeeded.

We will confine our remarks to the pattern and forget all about the clutter, in fact nothing perhaps can be said to change popular opinion on this score for it has been crowned with innumerable D—s. Look at the engraving of this picture in your magazine, Camera Craft, dispassionately. From the tea kettle to the faucet there can be run an imaginary straight line, let this line constitute the base of an inverted triangle, the apex then of this angle is to be found within the tea cup. When the eye has reached this point it has something of interest to arrest its attention, the cup. The eye will study this a moment before wandering away. From the corner of the sink on the right to the pitcher on the left may be found the base line of another triangle and the eye through the suggestion of the pitcher and two glass bottles will immediately follow the suggested triangle

EMPORIUM PHOTOGRAPHIC EXHIBITION



SAN FRANCISCO
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"SANCTUARY"
First Prize
(The Emporium Exhibition, 1922)
By ANNE BRIGMAN
Oakland, Calif.

CAMERA CRAFT

and when it reaches the apex of that angle it will find something to interest it. In this case it is not very clear just what that something is. It may be a place for another faucet, it may be the paper stopper from the milk bottle stuck there through cussedness, it could be a spot of sunlight or a forbidden house fly; what it is really does not matter so much as the importance of having something there. If the apex of that angle is "left in the air" so to speak, the eye lacks satisfaction. In proof of this statement, cover this spot and we miss something, there is an emptiness and the eye is lost in wandering, this should not be.

The spotting of the picture with three black patches also have an intent. Reference is made to the black handled brush in the sink which points directly to the kettle, and the eye intuitively seeks a corresponding black and finds satisfaction in the faucet, thus is completed another angle, another paragraph in the story. Notice the pitcher in the sink is turned in the right direction as also was the case with the black handled brush. Notice also the value of the perpendicular lines as shown by the bottles and pitcher, and mark their respective heights. The metal ring around the neck of the milk bottle has its purpose, it gives accent, cover that ring up and it will be decidedly missed, not because it is a ring mind you, but because it is an important "spot." The placing of the cup and saucer contribute to the happy scheme of things but to the average spectator this photographic gem will still be a cluttered sink and nothing more.

This effort could hardly be classed as pictorial and yet has not the artist succeeded admirably with her problem? Another point worthy of consideration is the technical excellence of the work. The matter of technique though not of the highest importance as compared to other qualities yet should not be entirely ignored; these points combined secured for this artist her high rating.

The first prize picture by Anne Brigman, is quite an admirable piece of work, worthy of study. There is no question in the spectator's mind as to the point of interest. The whole composition is focussed upon it. It is the first point that attracts the eye. In too many photographs the eye is so oppressed by challenging unessentials that it is bewildered, not so here. We have the strongest light and the deepest darks placed close together, the rest of the subject is depicted in grays. Notice the light portions in the distance are subservient to the light in the foreground. This shows control and control is what lifts the picture above and beyond a photographic print, and yet the improved picture still remains a true photograph.

It is not necessary to print a picture by any particular process or in any particular medium to control it. All that is necessary is that we should emphasize certain portions of our work and depress other portions with the aim of gaining simplicity and giving accent; thus do we show individuality, that quality so frequently overlooked among photographers in general. There are several pictures by this photographer in the exhibition.

Impressionism is also to be found within the photographic ranks, Johan

EMPORIUM PHOTOGRAPHIC EXHIBITION



"KITCHEN SINK"
Second Prize
(The Emporium Exhibition, 1922)
By MARGARET WATKINS
New York City

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Hagemeyer, winner of the third prize, is a very capable exponent of this more modern method. He strives with his camera to secure a picture of his subject as it appeals to him. He cares but little for the number of bolts or rivets the scoop in his steam-shovel has; this scoop appeals to him as a jaw, it devours or bites into the earth bank. The photographer strives to suggest its power, and not burden his work nor the spectator with unessential details; these are of more interest in an engineers office. Mr. Hagemeyer's work, of which there are other examples here, should command attention, he is always earnest and striving for individual interpretation.

P. Douglas Anderson, winner of the special prize, has many admirers for his work. Like John Paul Edwards, Anderson strives to secure his pictures under the most favorable natural conditions. Both these photographers will when necessary visit the same spot and try again. They have a good idea of what they want and count largely on nature to give it to them, which she does, when patience is not lacking. The finishing of the picture under these conditions, as a rule, calls for very little after work. Results obtained this way are popular, they have the ring of truth, everybody can understand them.

The group of pictures by John Paul Edwards, adds much to the interest of this exhibition. These pictures were not entered in competition, Mr. Edwards being a member of the Jury of Awards, but the show decidedly gains by their inclusion and this artist's work appeals as a reminder of the beauty that nature lavishes on the seeing.

There are many beautiful photographs to be found upon the walls and we have space to mention the names of only a few of the producers, and these have been picked at random.

Ernest Williams, of the Los Angeles group of photo-pictorialists sends in a variety of subjects and there is a strong leaning to the poetic in his compositions. His "Study of Trees" is both simple and decorative. "Eugenie" a portrait study in high key. "Where Dreams are Woven" and "Summer Fancy" are all little poems in silver print. We regret, however, that Williams should have introduced the theatrical element in his sylvan scene, "Summer Fancy." The figure of the dancer in stage shoes, silken hose and most abbreviated of skirts seems most artificial here among the big oaks, in the glorious sun.

Thos. O. Scheckell, Salt Lake, has a collection of six prints besides his winning picture. We could not keep our eyes from roaming to his "Banks of Drifted Snow," the picture was charming, the title had music, the day was warm. Holmes Mattee, also a winner, likewise had other works on the walls.

If we have seemed partial to the names of California photographers, please excuse us. The hills and woods here are full of them. To live in California is to be a photographer, we can not help it, the landscape invites us and the glorious sun beckons us on.

EMPORIUM PHOTOGRAPHIC EXHIBITION



"THE JAW"
Third Prize
(The Emporium Exhibition, 1922)
By JOHAN HAGEMeyer
Mill Valley, Calif.



Essential Investments and the Photographer

By Sigismund Blumann

Efficiency Engineer



In a well organized business the cost of the equipment is measured against its output in quality and volume. That machine is dear, however low its price, which does not produce as much and as good as the best. Not only does competition make this so but the exigencies of time and demand. Photographers are too often not business men. Recruited from the ranks of all trades and professions, self-trained in many cases through an amateur novitiate, they take to this profession for no better reason than that they enjoy it. A very good reason. Liking is the basis of aptitude. He is cleverest at anything who loves it best. But it is not sufficient. Success demands other and sterner qualifications. Nor can the photographer hide deficiencies under the broad and charitable mantle of artistic temperament. It will do as an excuse but it does not buy commodities.

Now, I do not assert that success is measured in dollars and cents but that money enables a man to do more, to do better, in that he can refuse to do less and inferior, in that he cannot be forced to prostitute his art and forsake his ideals. Whereas an empty stomach and an insistent creditor can spoil many a promising career.

But all this I unloaded in another place some time ago. What is to be said here pertains to equipment: 'to the most modern and improved machines and methods whereby the best results may be achieved in the shortest time and in the greatest and most unvarying quantities.

The developing tank survived a long and persistent antagonism and has revolutionized one step in the making of a negative. Our British brothers have found the exposure meter not only a saver of plates but an aid to better negatives. The really good printing machine has facilitated putting the picture on paper, the enlarging machine has superceded the hole in the wall and its reflector. Now an enlarging apparatus is offered the professional whose price, compared to its service and profit producing, is as one hundred to one in its favor. I speak of the Eastman automatic focusing apparatus. The price, running into hundreds of dollars makes it a formidable proposition but good business men figure that every dollar invested and bringing in a profit is sound finance and the more such dollars invested, the more income and profit.

This machine saves time, does better work, does more work in less time, saves from waste and spoilage and gives greater facilities for manipu-

EMPORIUM PHOTOGRAPHIC EXHIBITION



"THE OPEN GATE"

Special Prize

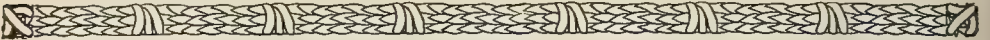
(The Emporium Exhibition, 1922)

By P. DOUGLAS ANDERSON

San Francisco, Calif.

lation than anything of the sort existing. One chooses ones sheet of paper, fastens it down, inserts a negative adjusts by one pull or push to a scale accurately laid out for size, and paper and plate are focused by the one motion, each to the other. The whole operation, including taking the materials from their containers, consumes less than two minutes. All the fussing can be devoted to manipulation, dodging, timing—and even the last is standardized by rule and scale. If time itself were valueless, the saving of sensitized paper would pay for the entire investment. The product is better as those who have experienced the difficulties of seeing by dim light what they want to get at is projected on the screen well know. There is no experimental shoving to and fro of camera and easel, no screwing in and out of the lens and no, after all has been done, fuzzy, halated print to discard.

This may sound like advertising. If it be that, may the makers of a really good thing profit by it. Never a cent in money or value comes to me. My enthusiasm might evaporate if I were paid. It would lose the kick that comes of telling my fellow photographers every now and again what I think. In this case the service is to them. The proposition resolves itself into this. Four hundred dollars invested saving one hundred a year in waste, two hundred in time—which means output, rent and over head generally,—and one hundred in better work equals the four-hundred-dollar apparatus free after a twelfth month. If business be good, anything over that is velvet.



Pictorial Photography at the State Fair

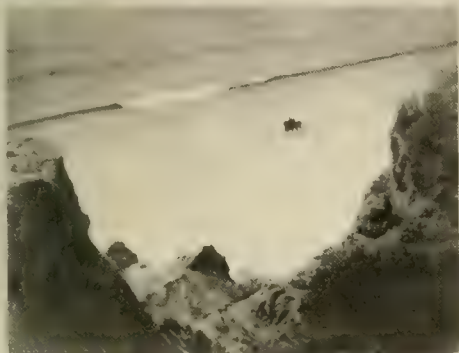
By John Paul Edwards



This September has recorded the fifth successful annual exhibition of pictorial photography at the California State Fair. More than thirty thousand people reviewed the splendid hanging of photographs with evident interest and appreciation. The goodly message of pictorial photography went forth to receptive thousands who had never seen works of this high standard before.

To look backward some five years ago: The directors of the California State Fair requested the writer to assemble an exhibition of pictorial photographs to be shown in connection with an exhibition of paintings in the art gallery of the fair grounds. It was a decided success and shared equal honors with the really fine display of paintings in the same gallery. In this and the four exhibitions succeeding it we have hung the works of nearly every pictorialist of note in the United States, and also the works of a large group of distinguished foreign entrants.

EMPORIUM PHOTOGRAPHIC EXHIBITION



Fourth Prize

"LOW TIDE"

By G. H. S. HARDING

"MIDNIGHT SHADOWS"

By HOLMES I. MATTEE

"SURF FOAM"

By ANSON HERRICK

Fifth Prize

"EVENING"

By IDA KRAGEWSKI

CAMERA CRAFT

These exhibitions have proven conclusively the appeal of good photography to the general public and the advisability of this class of exhibitions for state fairs. The way has been pioneered for the great annual "fairs" in other states to add to their aesthetic attractions a similar exhibition of the art of the camera.

The California events in question have been largely invitational. It has been our aim to show each year comprehensive hangings of photographs from different individuals and groups throughout the country.

This year at Sacramento about two hundred and fifty pictures were exhibited representing the efforts of more than seventy-five contributors from all corners of the world. In addition to the regular invitational exhibit we were fortunate in having for exhibition the prize winning prints of the Second Annual Competition of American Photography Magazine. This most varied and really splendid group of photographs met with the greatest interest and approval. This group of pictures was, of course, not entered in competition.

The following awards of gold, silver and bronze medals were made in each of three classes:

Portrait and Figure Class

1st	The Swimming Pool.....	Ernest M. Pratt
2nd	Ruth Comfort	Louis Fleckenstein
3rd	The Fan	Holmes I. Mettee

Landscape Class

1st	The Gate	P. Douglas Anderson
2nd	The Quiet Traffic Hour	Ernest M. Pratt
3rd	Playmates	Henry Hussey

Miscellaneous Class

1st	Steam Shovel.....	Johan Hagemeyer
2nd	Relics of Former Days	Wm. A. Alcocks
3rd	Swan Decoration	Thos. Y. Sheckell

It is not within the scope of a brief article to review this excellent exhibition, rather would I briefly digress to points of more general interest.

Most of the outstanding, really big pictures in this and likewise the many other exhibitions the writer has viewed this year are examples of straight photography pure and simple. There are inherent fine qualities in pure photography which equal if not excel any of the advantages offered by the so called control processes. I do not intend to disparage the fine capabilities of bromoil in the hands of a master craftsman like Chaffee or of gum in the hands of a Gaso or a Kasebier, but I do contend that in the hands of any but the few elect these media are impossible. The average process print submitted to the oft suffering jury of selection is a veritable crime against the art of photography—a nightmare of smudge and destroyed values.

Let us have more of the real fine things done in gum and oil, but far, far less of the vain attempts of the "process student." Let us remember

EMPORIUM PHOTOGRAPHIC EXHIBITION



Fifth Prize
"PORTRAIT"
By L. ARMER
"ON THE CANAL BRUGES"
By L. A. GOETZ
"DECORATIVE PANEL"
By THOMAS A. SHECKELL
"OCTOBER"
By EUGENE P. HENRY

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that it is not the printing medium that makes the picture, rather it should be a picture if rendered in any medium.

May it be likewise recorded here that law of man or Allah should protect the aforesaid suffering jury against the crime wave of harvest moons installed in too many pictures by ambitious process workers. The light of the silvery full moon has a most wonderful and subtle quality and charm. I presume that this quality could be rendered photographically, but it isn't. Sooty, muddy prints parading as low keyed impressionism can likewise go to the discard with the afore mentioned "dime size" harvest moons and none of us will mourn much over their disappearance.

Pictorial photography is in a very healthy and promising condition today. There is a better average quality of work produced than ever before in history. There are more good men producing and far more good prints produced than ever in the years past. Whether certain men or certain pictures of past days were better or worse than similar works and workers of today is a mooted question, no fair minded individual can deny, however, the great improvement in the broad average quality of the pictorial photographer of today.

The credit for a large part of this evident progress can be given to the photographic exhibition. It provides the incentive, the means of comparison, the inspiration for the hundreds who find in the camera a delightful outlet for their artistic aspirations. In this field of usefulness and in the providence of aesthetic pleasure for many thousands of viewers we feel that the California State Fair exhibitions have played a worthy part and well justified their existence.

Alkali and Frilling

Thanks to the manufacturers of four plates and films, frilling is now a rare occurrence, at least in the temperate zones. When it is met with it is usually due to a developer overstrong in alkali, a fixing bath too concentrated, or excessive change in the temperature of the various baths. As a matter of fact high temperature is seldom the cause of frilling. More often it is due to transferring the developed plate from the developer at 65 degrees to rinsing water from the tap at say 80 degrees in summer or 40 in winter. Where all baths are of approximately the same temperature, even though this may be relatively high, there is comparative freedom from frilling. Formaline is often advised and is perfectly suited to the purpose, but is disagreeable to use due to the irritating vapors. A solution of 1-20 will meet all ordinary requirements. Where it is desired to enlarge from the negative at once a solution of 1 part of formaline to 8 parts of water will render the film insoluble. Alum may be used in a 5% concentration but has been accused of causing the rotting of the film. Several tropical workers have advised the painting of the dry plate before development around the edges with parafine or some waterproof varnish. This is probably the best method where there is a danger of the plates frilling during development.—Carroll B. Neblette.

Bromoil—A Practical Article

By Louis A. Goetz
San Francisco, California



With Frontispiece and Illustrations from Bromoils by The Author

Note: Mr. Louis A. Goetz whose artistry is known to pictorialists and picture lovers from coast to coast, took up Bromoil less than three months previous to the writing of this article. His mastery of the technique is nothing less than marvelous. A month after making his first Bromoil he produced prints which equal the best product of old and eminent workers in the medium. While the operations are probably in nowise new, and the writer claims no originality, it impressed us that our readers would derive interest and profit from a plain, unvarnished narrative dealing with the ways and means of one who succeeded in so short a novitiate.—S. B.

Photographic exhibitions of late seem to show that the Bromoil process is gaining favor in the United States. Foreign workers have long been awake to the advantages of the process. That the reader may gain such minute insight as comes from the actual experiences of a worker in the medium treated upon, and to supplement the excellent text books on the market, this article will endeavor to be first of all, lucid; secondly, comprehensive; and thirdly, and of course, accurate.

Before going into details of this process it is well to know what a bromoil is. A bromoil is a bromide print which has been treated so that the gelatine in the shadow parts of the picture will readily take the greasy ink to be applied. Whereas in the high lights, on account of the water absorbed in the gelatine, the ink will be repelled. If a brush, lightly charged with lithographic ink, is dabbed on the face of the wetted print which has been surface dried, a visible picture is produced. Many books and articles have delved upon the abstract subject but I intend to give the beginner the real *modus operandi*.

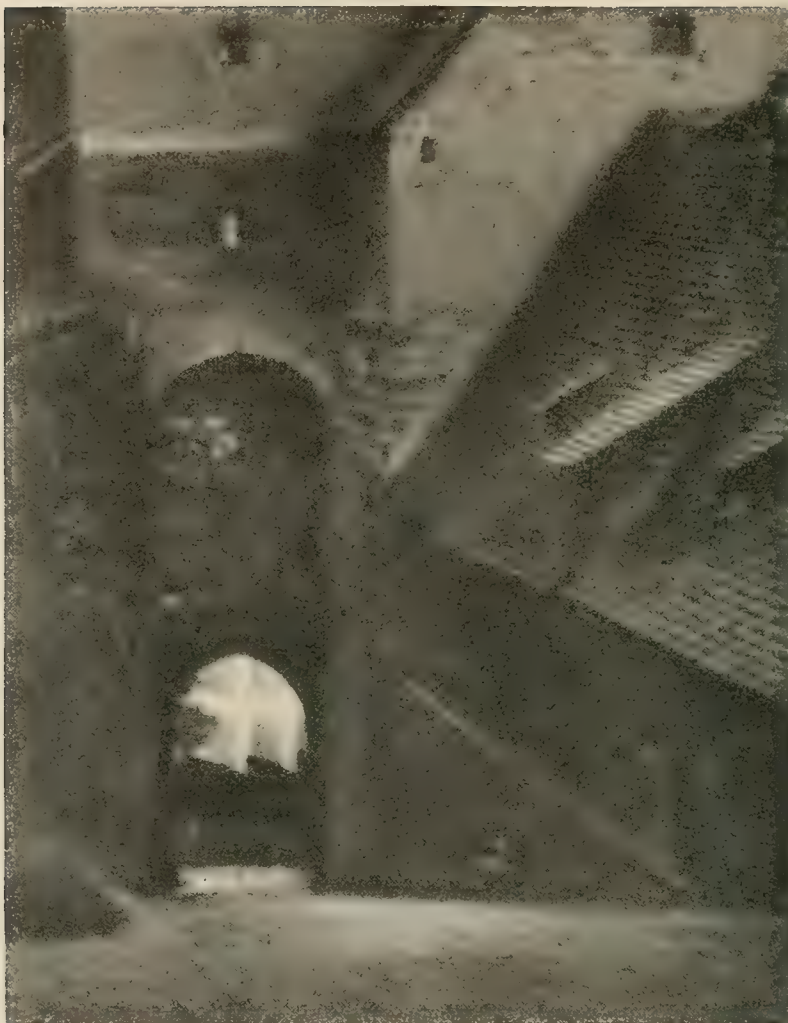
Development of Bromide Print

Success in bromoil depends to a great degree upon the development of the bromide print. Every particle of silver must be reduced or the ink will not "take" evenly. A good developing formula is:

Amidol	30 grains
Sodium sulphite	150 grains
Water	15 ounces

This amount of developer should not be used for more than five or six 8 x 10 prints.

Expose your bromide print just sufficient to be able to leave it in the developing tray for about 8 or 10 minutes. Before immersing the print it should be soaked in water until limp. Permit the print to remain at the bottom of the tray, pouring off and draining the water. Then pour on the developer and the image should appear in three or four minutes if the



THE HEIDEN TOWER, NUREMBERG

exposure time has been correct. When full density has been attained, let the developer act for about four minutes longer, which will be perfectly safe with the amidol formula. Rinse thoroughly and remove to the following fixing bath:

Hypo	1 ounce
Water	5 ounces

Move the print about for a minute or so to secure even fixation; turn face down, still moving the print about: total time, ten minutes for fixing. To leave it longer in the hypo will prove harmful when inking. Now remove the print from the bath and wash until last trace of hypo is removed. Hang up to dry, do not lay flat as the print will not dry evenly and trouble will result in the following operations. The bromide print when dried

BROMOIL—A PRACTICAL ARTICLE

should be a good print rich in tone graduations without heavy shadows and harsh highlights.

Bleaching the Bromide Print

We now come to the most important part of the process. For insuring good inking the gelatine of the print has to be in such a condition that when inking the pigment should "take" well. For the bleacher make up ten percent solutions of each of the following salts, Bromide potassium, Copper sulphate, Chromic acid; for use take of

10% solution Bromide potassium.....	1½ ounces
10% solution Copper sulphate.....	2 ounces
10% solution Chromic acid.....	1½ drams
Water	3½ ounces

Before putting the bromide print into the bleacher soak it in a tray of water until limp, then pour off the water and flow the above solution over it. The print should start to fade away immediately and after there remains only a yellow greenish image it is rinsed in four changes of water and immersed in a twenty-five percent hypo solution. In this solution the yellow-greenish color will disappear leaving only a faint image. When the color has entirely vanished the print is removed and again washed for ten to fifteen minutes to remove all trace of hypo. The print being freed from hypo it should be hung up to dry as before. If the print were laid flat, the uneven drying will interfere with the inking. The bleacher may be used for three or four prints at the one time, it should then be discarded. Use fresh bleacher for each new batch of prints.

The bleaching should be done by artificial light; besides reconverting the print to partial bromide of silver, through the bleacher the chromated gelatine is also light-sensative and the result of exposure to daylight would be to fog the entire surface in the final result. Handling with care is also recommended for often the natural oil of the skin leaves greasy finger prints.

When the sheet is hung up to dry, blowing on the surface or looking sidewise will reveal a raised image of relief which is the evidence of effective procedure. Different papers will show varying degrees of relief, some little, some very strong but it may be said that a total lack of this quality will spell failure in inking.

The print may even now be inked but it is preferable to let it dry, which hardens the gelatine and permits of more dabbling with the ink-brushes. The temperature throughout should be from 65 to 68 degrees Farenheit.

Inking or Pigmenting

The bleached and dried print is now immersed in water at 65 to 68 degrees Farenheit for about half an hour. If one fears that it has been handled too much during the bleaching, it might be well to remove all grease with soap lather. Take a piece of Castile soap rub it on the wet hands and pass the lather over the print, rinsing well to remove all traces of soap. After the print has remained in the water for half an hour or so,

CAMERA CRAFT



THE INCOMING TIDE

a slight relief appears but not enough for inking. Add warm water to bring the temperature to about 80 or 90 degrees and from now on watch the bleached print: If the water is too warm the gelatine will become soluble and will be impossible to ink. In such case, if one wants to try and save the print, immerse it in cold water and again hang it up to dry. Experience is perhaps the only way to know when the gelatine is really ready to take the ink. A good method to ascertain this is to carefully pass the finger over the shadows and the high lights and when the shadows seem to be harsh and the high lights slippery the print is ready for inking.

Remove the print from the warm water and place it on a support (a sheet of glass) over which several thicknesses of wet blotting paper have been laid. Remove all surplus moisture from the surface of the print with blotting paper or better with a chamois skin, as blotting paper after frequent usage will leave tint. The print, surface-dried and on its blotting paper support is now ready to ink.

To apply the ink special brushes are necessary, called bromoil brushes or stag's foot brushes on account of their shape. Any dealer carrying bromoil accessories will have them. A set of three brushes should be all

BROMOIL—A PRACTICAL ARTICLE

that is required. The very largest obtainable should be bought, also a medium and a small brush. Ink can also be bought of these dealers.

A small quantity of ink is spread over a piece of glass with a palette knife, working the ink well. For special effects I may thin the ink a trifle with Paste Compound, formula 9009. The brush is then taken and the ink lightly touched a few times to distribute it evenly on the tips of the hairs, being careful not to press too heavily. Lightly dab the brush on a clear part of the glass, this assures even distribution of color. The beginner should start inking with a slight tapping or dabbing action all over the print depositing the ink carefully and taking more from the glass when needed. Always start to ink on the shadow portions of the picture and go gradually to the lights; a good way is to have a sample bromide as a guide if one is not accustomed to the work. When the print is all inked over if one wishes to add more ink, by pressing the brush gently over such parts more ink will be deposited, and if one wishes to remove the ink, a light hopping with the brush is all that is required. The consistency of the ink is important, if too soft it will do more harm than good. I would advise the beginner to use a medium ink, not too hard nor too soft, but in every instance never start inking with a soft ink. A soft ink is only used to put shadows where needed. By applying the brush in different ways, all kinds of effects may be secured and a great control is at the hand of an experienced worker.

When the print has been inked it is pinned down to a piece of cardboard and set aside to dry in a place free from dust. New brushes sometimes leave hairs on the print, these may be easily removed with a soft brush when the print is nearly dry. If after the print has been inked and it should prove disappointing, take a wad of absorbent cotton drenched with gasoline and clean the whole print. It is then permitted to dry and we can with the preliminary soaking of the print in water commence re-inking for another try.

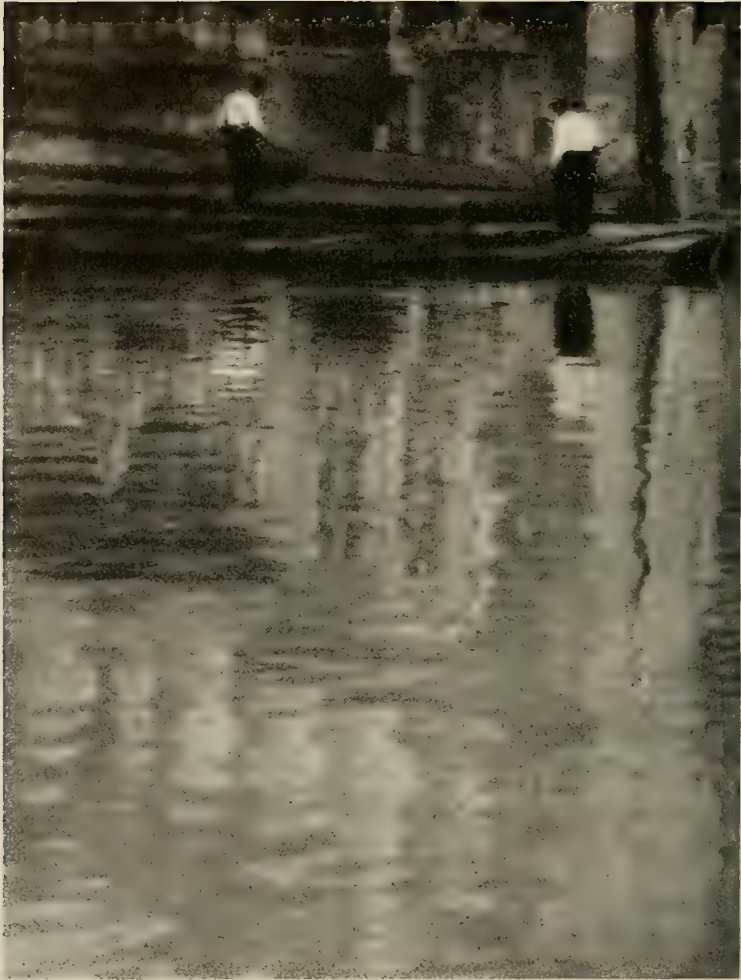
Brushes should be cleaned as soon as inking is finished. A good method is to take a cake of soap and lightly apply the brush to it, then with the brush work up a lather in the palm of the hand and permit water from the faucet to run between the brush and the palm. By repeating this until the lather shows white all trace of ink will be removed. Rinse the brush free from soap and let dry. Should one be in a hurry to dry the brushes, after having removed all the soap they should be rinsed in carbons.

I have tried to give a short and concise description of the Bromoil Process based on my experience after many experiments. In conclusion I need only add the following:

The paper I use is Wellington Bromoil, to be obtained from the photographic stock houses or, Ralph Harris & Company, 26-30 Bromfield Street, Boston, Mass.

The ink is manufactured by Geo. H. Morrill Co., San Francisco, Cal. The black ink is known as S592 and for sepia get No. 263. All other

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ON THE CANAL, BRUGES


colored inks are obtainable from this house but so far I have confined my work to the two colors mentioned. .

Paste Compound, formula 9009, may be procured from The Arlett Roach Co., also of this city.

The brushes may be obtained from various dealers carrying bromoil supplies and also from Ralph Harris. They are known as Sinclair's brushes, and I would recommend the following sizes, Nos. 20 or 24, also 14 and 8.

Forthcoming Exhibitions

Place	Date	For Information Address
Frederick and Nelson	November 6 to 18, inclusive	Frederick and Nelson, Seattle, Wash.
Camera Pictorialists Los Angeles	November 20 to December 11, 1922	N. P. Moerdyke, Secretary, 811 Washington Bldg.



III.—Wild Life Photography

(Nest Photography)

By Stanley Clisby Arthur



Former State Ornithologist of Louisiana

The elementary grade in wild life photography undoubtedly is that of nest photography.—Nest photography itself is divided into three parts, viz, the picturing of the nest and the eggs, the picturing of the nest and baby birds, and the picturing of the nest and young with the parent birds;—the devoted two that perform one of the miracles of nature—the laying of an egg and the incubating of it into a downy, wide-billed, living thing, that flies and animates the world with its feathered colors and makes it glad with its ecstasy of song.

The outfit for elementary work in photographing birds' nests can be elaborate or extremely simple. Nest photography may be done with a graflex type of apparatus; a folding kodak or other roll film camera, or with any size, make or design of focusing stand camera.

The main thing is to find a bird's nest and then make a photographic record of it. In this work the need of a photographic blind is not essential for we do not necessarily have to use stratagem as we must to obtain an image of a creature that can fly from us. Once found the nest remains put and the camera operator does all the moving.

For the most satisfactory results a camera that has a long focusing bellows should be used. The lens may or may not be an expensive anastigmat. An ordinary rapid rectilinear (of a long focal length preferably) orthochromatic plates or films and a ray filter, will be all that is necessary for perfect results. The one who goes bird nesting with a camera will also find it to his advantage to take with him the following:

A pair of pruning snips; a ball of twine; a kodapod, octapod, or some such other ball-and-socket tripod clamp for work in trees; a small mirror; a pair of lineman's climbing leg-irons, if tree top work is to be done; a tilting top attachment for the tripod.

Thus accoutred, and with some smattering knowledge of natural history, the bird nest photographer is ready for business.

The actual photographing of a bird's nest is not a difficult thing to do save in certain cases. There are always fundamentals that should be observed in making exposures, such as composition and the lighting of these wonderful structures of nature. A photograph of a nest properly lighted is a joy to look upon. A bird's nest that has been photographed with an absolutely flat scheme of lighting suffers in comparison with one that has



THE "LONG-LEGGED" TRIPOD

When nests are six feet from the ground, the regulation tripod is useless until its legs are lengthened. This is done by three sticks or boughs tied to the extension legs. Focusing can be done by standing on stakes driven in the ground between the tripod legs.



THE STEP-LADDER "TRIPOD"

A high nest presents many difficulties but an ordinary step-ladder will overcome most of them. All that is needed is a small box, a D clamp, and a tilting top.

been taken with the pictorial influence animating the camera man. As most eggs are splashed and speckled with colors and delicate tints, a color-value plate or film is necessary to secure the correct monochrome rendering. Light filters, such as K1 and K2, will do.

There is one rule in nest photography that should be religiously observed and that is to picture the nest *in situ*. This is a Latin term very frequently used by naturalists and it means that the nest, or other natural history subject, should be taken as it is situated—without being disturbed or, in other words, the natural situation. The photograph of a nest in the place where it was constructed by the builders, on a limb, in the grasses of a pasture, on the sands of the sea shore, is of more value than a technically better photograph of the same nest removed to a studio and photographed there.

WILD LIFE PHOTOGRAPHY



USING THE TILTING TOP

The tilting top will not function on the top of a step ladder. By securing a narrow wooden box small enough to allow the side bars of the tilting top to slide up and down, the whole can be held fast to the top step by a D clamp.



STAND CAMERA ON STAKE "TRIPOD"

To secure photographs at a proper height, a wooden stake and a Kodapod will serve better than a regulation tripod; allowing plenty of stopping down and a long exposure.

Nothing should be disturbed. It is, however, permissible and recommended, that small twigs and branches interfering with a clear view of the nest, may be cut away or, if they may not be cut, the ends of the branches can be tied back. Remember your ball of twine!

Sometimes it is best not to use the pruning snips as most nests in bushes and shrubs are so placed that the surrounding branches and their leaves shade the nest from the sun's rays and, when the babies are in their cradle, this lack of shade may prove disastrous. Whenever a twig has been cut the end will show white in the resultant picture. This should be remembered and the ends darkened. A wet layer of dirt is sometimes all that is necessary to remedy this or a leaf can be so arranged that the cut end is hidden.

Of all nests those constructed on the ground are the easiest to photograph but often times the hardest to find. When it is certain that a bird has a nest in the field and concealed by the grass, the easiest way to locate it is to call into use a long light rope. With a companion on one end start a systematic combing of the field by dragging the rope over the tops of the grasses. The moment the rope flushes the incubating bird let it drop and start your search along the line of rope. By this simple process an otherwise cunningly hidden nest is located without a waste of time.

When located the nest should be, by all means, if there is strong sunlight, side lighted. The best light is that secured on an overcast day or when the sun, temporarily, goes behind a cloud. The usual run of nest pictures taken in strong sunlight are underexposed. The shadows cast by the eggs are usually pure black in the finished print and the eggs them-

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selves are chalky. This is wrong. A good rule to follow is to make all errors on the side of **over-exposure**.

A low viewpoint should be selected for the nest on the ground and the photograph should **never** be made looking directly down on the nest. This



LITTLE GREEN HERON'S NEST

Illustrating the necessity, at times, of the liberal use of pruning snips. To show this nest and eggs a great many stalks had to be cut or broken and folded down. A stand camera, a ray filter and orthochromatic film gave the correct color value of the green stalks and the cut-grass.

will be nothing more or less than a map of the nest and what it contains. You should give an idea of the form of the nest as well as what is in it and it does not matter even if only the top halves of the eggs are pictured.

A ground nest pictured at a height of a foot from the ground is about the proper altitude. Should it not be possible to set your tripod low enough for this, drive a stake in the ground, attach the kodapod on top of it and make the exposure in this fashion.

A small diaphragm, especially if a closeup is being taken, should be used and a generous exposure given. Often this long exposure is not possible when there is a stiff breeze blowing as the wind will sway the grasses too much. Then judgment must be used—sometimes four snapshots at 1-25th. of a second each will stop all motion when a full one-second exposure will show movement.

Domed nests, such as the ovenbird's, or nests that have deep shadowed places, should be photographed with a long exposure, stopped down to the smallest aperture, and throwing sunlight into the hole or lightening the shadows by the aid of a mirror. "Painting with sunlight" those places that would otherwise develop a "clear glass" on the negative.

WILD LIFE PHOTOGRAPHY

Too much of this reflected light will sometimes spoil a picture and the effect will be ruined if the projected beam of light from the mirror is not kept in constant motion.

Too much of this reflected light will sometimes spoil a picture and

DOVE'S NEST ON GROUND

An example of photographing a nest from too high a view point. This is what might be called a "map" picturing of the nest and contents.



the effect will be ruined if the projected beam of light from the mirror is not kept in constant motion.

It is the nest that is constructed in shrubbery or small trees that will prove the easiest to take, especially the nest that is four to five feet above the ground. This ideal condition is frequently met and the wild life photographer should take advantage of it either with his graflex or his stand camera. But even in this case the stand camera on a tripod will outdo the graflex in results. The lens should be stopped down to insure a wealth of detail. This naturally means a long exposure and the possibility of the branch on which the nest is built, swaying in the wind. To circumvent this the ball of twine one should carry will come in handy. I find an old, much-used, gray fishline the best for this purpose for, should a bit of it get in the picture it will be more inconspicuous than either white or black twine or heavy thread.

A piece of the twine should be tied to either side of the branch and pegged or otherwise secured to the ground and the branch guyed against swaying. Cord from the same ball of twine will come in handy in tying back branches that will show in the resultant negative as out-of-focus, transparent outlines. This should be watched for if the best results are to be secured.

The naturalist, or nidologist, as the one who is interested in the natural science of bird nesting is called, usually demands three photographs of a nest.

1st. A general view of the territory where the nest is found. This is the habitat view.

2nd. A photograph taken quite near the nest showing it, the character of its immediate environments and the manner by which it is fastened to its supports. This is the construction view.

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3rd. The closeup of the nest and what it contains, *in situ*. This is the contents view.

A correct photograph of a nest should occupy, at the very least, about one-third of the area of the negative. While it is a mistake to fill up the



NEST OF THE FORSTER
TERN

An example of a ground nest photographed from the proper viewpoint. The fact that a piece of nesting material bisects an egg adds to the value rather than detracts from it.

plate with the nest it is worse, on many counts, to make too small an image when a larger one **could** be secured. Therefore, one cannot go wrong if a bird's nest is photographed so as to make it occupy the customary one-third, as a generous sized image gives a better enlargement than a small one and should it be used for a lantern slide there is latitude for composition and not a crowded picture, to be thrown on the screen.

When nests are six feet from the ground and more the wild life photographer's troubles begin. If the nest is not too high the picturing may be accomplished by adding legs to your tripod. Often times ordinary straight branches firmly tied to the extension legs will give one the necessary height. A step ladder, if one is not too far afield, on the top of which a tilting-top has been mounted "is worth its weight in gold." When extra legs are added to the tripod to photograph at a height the difficulty of focusing the camera may be overcome by driving three stakes in the ground to stand on, or sharp focusing may be done by mounting a companion's back, a spectacular method, one that works, but not the best.

If adding legs will not do the trick it will then be necessary to climb the tree and make the photograph by the aid of a ball-and-socket tripod, attached to a neighboring branch. Times there will be when the nest is so situated that there is no branch that will permit this. Then it will be necessary to lash a branch or two across some others, attach the kodapod or octapod and take the picture. Another method of accomplishing this is to carry with you up into the tree a large spike. Drive this into the trunk or branch near and above the nest, wrap it with cloth and twine so as to form a slight knob, and grip the kodapod to it.

In tree top work the graflex will come in handy. It will enable you to

WILD LIFE PHOTOGRAPHY

photograph nests that defy the camera that must be attached to a tripod head of some sort, you can brace your body, as a rule, so as to make a slow exposure with the lens stopped down for detail, and the composition of the picture is made easy for you look down on the ground glass instead

WILLET'S NEST

The dark-brown eggs sometimes present difficulties in correctly rendering their color. A full exposure usually takes care of this.



of having to get in back of the camera to focus it and, when the back of the stand camera is jammed up against a tree trunk, this presents certain difficulties.

When doing tree work climbing irons will be worth the trouble of carrying them about. Climb your trees **without** your cameras. Before doing so attach the end of a light rope to your belt and the other end to your camera case. When you are in the tree haul up your camera and go to work.

For work in trees the ordinary folding kodak on a kodapod will do wonders. The "guess focusing" is not a real problem for as a rule careful measurements as to distance can be made. Be sure to be far enough away to include all of the nest in the picture, stop down to the smallest opening, and make the longest exposure possible under the circumstances. The roll film kodak is easy to carry about in the branches, it is light enough to be attached to the kodapod without danger of tearing loose, and is capable of being released at a distance, in a manner that will be explained in a succeeding chapter.

The hole-nesters present the real difficulties. Take a woodpecker's nest for instance; if you must have a photograph of the nest interior you should go afield provided with a saw of some description, a key-hole saw blade that locks in a handle is best, although a hack saw on a skeleton frame will answer. The depth of the nest, i. e., the distance to the bottom of the hole from the entrance should be first ascertained by a long, thin, green twig, then a horizontal cut made almost flush with the bottom of the nest, a top cut about half way between the lower cut and the entrance hole. The horizontal cuts are made with the saw and the two vertical cuts, or splits, made with a hand ax. This will allow a square section to

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be lifted away and the nest exposed. Photography finished the nest can be set back into place and the birds allowed to finish their incubation duties in peace, or the square section of the trunk can be lifted at any future time if successive photographs of the brood, from the time of emergence from the shell to flight time, are desired.



LOUISIANA HERON'S NEST

Shooting down from on high and from another tree with a Graflex secured this picture, it shows the form of nest and contents but the surroundings are under-exposed.

Before deserting tree top photography mention should be made of photographing large nests from adjoining trees. Such a practice hardly needs explaining as each nest to be so photographed is a problem in itself. Here the photographer, be he photographing a crow's nest, an eagle's, a hawk's, or some other such bulky nest-builder's work, must make the best of circumstances. My best results have been made with a graflex, with a long focus lens. Telephoto exposures from tree tops are strange looking things when developed, owing to the sway of the trees.

Above all things in making pictures of birds' nests do not touch the eggs you find in these wonderfully constructed cradles. Not that "electricity from the hand kills the germ," that is all rot; but sometimes birds desert eggs that have been handled by man, why, we do not know, as yet. To handle eggs in a nest usually means that they are not returned to the position in which they were left by the bird and that position is the natural one—the one that should be photographed.

Nests, such as kingfishers' and the bank or rough-winged swallows', cannot be photographed without excavating and this, naturally, destroys the subterranean home. Such photographs, when they are secured, are more in the class of freak pictures, not beautiful and, as a friend of the birds, my advice is to remain content with securing pictures of kingfishers and bank swallows entering and leaving their homes. That kind of sport photography will be described in another chapter.

Chapter IV will be devoted to the photography of baby birds in their nests.

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II. With a Camera in the Yosemite

By Merton E. Fournier

Yosemite, California



With Illustrations by the Author

(Concluded from last month)

So far, I have mentioned only a few of the better-known features of the park, but there remain many more which, to me, are of even greater interest. Up the canyon of the Merced, extending for three miles above the head of Nevada Falls, lies what has been most appropriately named the "Little Yosemite." For it is the famous valley done over again on a smaller scale.

But it is different from the main valley in that it has not as yet been mutilated by the hand of man. Here one may walk for hours without noting a thing to signify that it had ever been visited before. Here will be found many short cataracts of the Merced, and then again, long lazy stretches where all will be quiet, with hardly a ripple showing on the river's mirror-like surface, as if it were waiting to catch its breath before plunging on its mad rush over the two falls on its way to the sea.

Here also, if one has the patience and ability to move quietly, he may be rewarded by a picture or two of deer, and possibly, bear. Such pictures are by no means easy to get, for while one may get frequent sight of game, to approach close enough to get a good-sized picture will be found most difficult. It is best not to attempt to approach too close for the first shot, but rather take what can be obtained from a distance. Then by carefully advancing, one may often get another view from a closer stand. By this means one is sure of one negative at least in which the subject, though small, can be subsequently enlarged.

And so it is that the farther back and higher into the mountains one goes, the wilder, more rugged, and to my mind, more beautiful, the country becomes. Grandest of all is the back country along the upper reaches of the Merced and Tuolumne Rivers. Reached either by trail up Tenaya Canyon or by the Tioga Road across the summits of the Sierras, lies one of the most beautiful spots of all. Tuolumne Meadows.

The trip by road offers numberless picture opportunities, almost every mile. The road, winding through miles upon miles of magnificent pine timber, is forever climbing to the top of some divide, only to drop down into another valley which seems ever more beautiful than the one before. The route from the valley follows a generally westward direction for twenty-five miles, passing out of the park boundaries just after leaving the Tuolumne Grove. At Carl's Inn on the south fork of the Tuolumne River it makes a

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broad swing to the right and heads directly east, into the heart of the mountains.

Five miles more, and the road again re-enters the part at the Aspen Valley Ranger Station; and, after traversing some twenty miles of the high



"ASPEN VALLEY,"

Where the Tioga Road enters the Park, taken August, 5 a. m.

Sierra meadows, drops again to the crossing of Yosemite Creek. In the spring these meadows are literally carpeted with a profusion of wild flowers. Here the flower lover can get pictures without number.

A mile and a half off the road at one of the many meadows lies Harden Lake, a little body of water about half a mile long, looking almost jewel-like in its setting of deep green pines.

Fifty-eight miles from the valley, the trail up Tenaya Canyon joins the road at Tenaya Lake; a beautiful lake with water clear as crystal, set in the bottom of a great cup curved out by the Tenaya glacier thousands of years ago. The walls, high, rocky and barren, except for the few trees that have found foothold in its crevices, still bears a memento of the great ice flow in many places where it retains its glacial polish.

Crossing a low divide five miles beyond the lake, the road drops down upon a great broad plateau, bisected through the center by the Tuolumne River. Tuolumne Meadows, and it is well named! Flat as a floor, more than a mile wide and a number of miles long, it is surrounded on all sides by snow-clad peaks. The elevation is 8500 feet, and even in the summer the nights will be found cold. I found ice in a water pail the morning of August 14th, and a few trout contained in a pan of water were frozen solid.

WITH A CAMERA IN THE YOSEMITE

Near the upper end of the meadows are located the Tuolumne Soda Springs, where the strongly-charged waters will be found bubbling up through a strata of limestone.



"HARDEN LAKE"

Over a recently-constructed trail, one may now journey to the Waterwheels of the Tuolumne, some eleven miles down-stream, and at the head of the Grand Canyon of the Tuolumne. This is another trip well worth while, and some wonderful picture opportunities will be found on the way. Everywhere will be noted mementos of the great ice flood, when this canyon was a part of the mighty glacial system that was responsible for the formation of the Yosemite Valley itself.

Smooth, barren slopes will be found which look as if they had been sliced off with a giant scythe, and everywhere are mammoth boulders, often as big as a house, which remain as the glacier left them; as often perched on the summit of a ridge as deposited in the ravines. And through it all runs the river over numerous cascades and with occasionally a quiet pool where the trout can be plainly seen in the crystal-clear waters.

Some of the more important of the many falls and cascades have been named, and the Tuolumne Falls, the White Cascade, California and Le Conte Falls are all passed ere the Waterwheels are reached. To get the best pictures of the falls, it is necessary to go in the spring of the year when the river is highest, for later, when most of the snows have melted, the wheels are mere shadows of their former selves. The accompanying illustrations, taken in August, do them small justice.

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Eight miles to the east of the meadows, the Tioga Road mounts to the summit of the divide separating the watershed of the Merced and Tuolumne rivers from the long dry valley to the east. Here at Tioga Pass, at an elevation



"TUOLUMNE MEADOWS"—LOOKING EAST

of 9940 feet, one is almost at the timberline, as one of the pictures will show. Looking westward the range of mountains through which we have come, thrust their snow-capped peaks into the sky and boldly proclaim the grandeur and the majesty of this wonderland of the high Sierra.

This is the eastern boundary of the park, and from here the road continues on down to Mono Lake, where it divides, one branch going north to Nevada and Lake Tahoe, and the other, south, through Owens Valley to Los Angeles and the coast.

Now, a word about the pictures—Most of them were made with a 5x7 Century camera fitted with a B. & L. Zeiss Kodak lens of 7-inch focus. However, as such an outfit proved too heavy to carry where one must go afoot, I supplemented it with a 4x5 Graphic, with which the same lens was used. And a few of the pictures, notably those of the Tuolumne Meadows and the Waterwheels, were made with this camera. A good tripod and a set of Wratten "K" filters completed the outfit.

With the 5x7 camera I invariably used plates, my favorite being the Standard Orthonon. For convenience and lightness in weight, film pack was usually used with the Graphic. My favorite developer is pyro, and the formula is simplicity itself. For use in the standard 5x7 tank, which holds half a gallon, I take: Sulphite, 57 grains; Carbonate, 57 grains, and Pyro,

WITH A CAMERA IN THE YOSEMITE

grains. No bromide. Using a slow plate, like the Orthoron, development for twenty minutes at 65 degrees gives me a perfectly graduated negative with no trace of fog.



"A MOUNTAIN CASCADE"—TUOLOMNE RIVER

Such a developer must, of course, be made up fresh for use each time, as the solution will not keep. Development, fixing, and washing are all carried on without removing the plates from the cage. I simply remove the cage from the developer when development is complete, rinse the plates for a moment in clean water, and immerse them, cage and all, in the fixing bath. When they are thoroughly fixed I place them, still in the cage, in a deep bucket of running water to wash.

Some may throw up their hands at this method of doing things, but by working in this manner I have never had a frilled or scratched negative, even though the wash water has at times been warmer than 80 degrees. Nor have I ever had to resort to any special hardening treatment. The ordinary alum and acetic acid fixing bath is all that is necessary, if it is fresh, and the plates are left in it long enough to become thoroughly fixed. I always make it a point to fix for at least twice as long as it takes the plates to clear, and never less than twenty minutes.

By thorough fixation I am thus able to cut down the time necessary to completely free the plates from all traces of hypo. I usually wash for about 30 minutes, but if the water is exceptionally warm I can cut the time down to 15 minutes without endangering the permanency of the negative. But I fix thoroughly, always.



"TIOGA PASS"—LOOKING WESTWARD, TAKEN OCTOBER, 5 P. M.

When dried, the negative is enclosed in one of the paper envelopes made for that purpose, on which I type the title, date taken, hour of the day, lighting conditions, exposure, stop, make of plate, and any other data that may be of value. These envelopes are all given a number and filed away in numerical order, making it easy to locate any particular negative when it is wanted.



WHISPERING REEDS

CAMERA CRAFT

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The Department of Notes and Comment

Business men must always respect, in dealing with one another, a sense of justice and equity. To get full value is to be fairly treated. Yet in the publishing of a magazine demands are made for double service and value above and beyond that which is paid for and injustice is imposed on the publishers and the majority of advertisers, not to speak of the readers, without intention or malice aforethought.

The practice of demanding and granting reading notices is pernicious. If every advertiser were accorded an additional half stick of reading notices Camera Craft should have to eliminate its text and shortly go out of business. Furthermore the mass of such matter would apall and discourage the subscriber and the publicity sought would fail of obtention. As it is there is no longer a dignity in pretending that a paragraph which is purely advertising can be anything else: It insults the readers' acumen.

But custom for years established the practice and we are the last, or nearly so, of the photographic periodicals to break from the precedent. As always this publication shall give far more than it exacts in tariff for its space. We are ever advancing and our field is extending more and more. An advertisement in Camera Craft is the biggest sort of advertising value—the advertisers tell us so—and beginning January 1923 and continually thereafter all reading notices shall be eliminated.

We rely on the understanding and far sightedness of our clientelle, composed as it is of representative business men, to welcome a change so decidedly toward the right and feel we shall not only be granted indulgence but hearty support.—S. B.

The Carbro Process

A carbro print is a genuine carbon picture, it is an advance on the old carbon process.

In these days of enlargements, carbro offers a real advantage where something different to the bromide is desired. We do not need a negative of the same size as the print as in the case of carbon. We do not require light to print by. The printing of a carbro picture is done entirely by chemical means from a bromide print. An important point: If the bromide print is controlled in its making the carbro print will also automatically show like results. Several carbro prints may be secured from the same bromide print—a point in economy. For the amateur and the professional portraitist carbro is worth studying.

We have a practical article on carbro in preparation.—E. F.

ART AND THE CRAFTS

A Department Devoted to the Encouragement of a Closer Relationship
Between Photography and the Fine Arts.

Sky Line

(Notes by the Editor)

When one travels in Europe, especially in the older cities, one is constantly filled with a sense of beauty that is not always easily accounted for. Old houses and historical associations scarcely give an answer. We have old buildings in America, London and Paris and the feeling is not there. Historical associations, whilst they may enhance our appreciation, are not in themselves beautiful—and yet as our eyes take in the lines of crooked streets and irregular market places one is conscious of a pervading charm. I could never quite account for it, until one day standing in the old Hansa town of Lubbeck my eye caught the picture here given and it flashed on me that the unmistakable beauty of the sky line was here the whole picture, and then followed the thought, is it not perhaps most always in the sky line that the chief beauty resides?

Now let us look at some of the characteristics of a skyline—it is the place where the strongest contrast usually occurs. The sky is nearly always so much lighter than the things beneath it that it of necessity arrests the eye. Unless the point of contact be not absolutely flat there is found an enclosed light space which should be considered under the usual principles of design and fundamental among these is the recognition of the fact that the spaces formed between masses are as important as the masses themselves. The principle is obvious, but is rarely given consideration in works on painting. If many bodies project above the average skyline the upper space is divided into masses and if these compose in accordance with good design the total effect is beautiful irrespective of the nature of the bodies (houses, spires, trees, etc.) that break into the sky mass. As I

have travelled along I have been noting the spots that naturally interested me in regard to their skylines with the results here given. If we now compare these skylines with those seen by glancing down



PICTORIAL VALUE OF THE SKY LINE

ART AND THE CRAFTS

an American street or looking across an American open place we see at once how different is the effect. If the district is of a higher class there has probably been some effort made towards uniformity, and the skyline becomes an uninteresting straight division between dark and light. If more primitive conditions prevail, such as marks San Francisco's main thoroughfare, then we have skyscrapers and one story stores in endless perspective, but no division of sky into patterned areas, such as characterize our foreign cities. It is worth while to ask why this difference. In the first place, the checker board system of city planning makes it impossible for the line of vision to be directly crossed by buildings and as the streets do not curve there is a further loss in the same direction. Again, where the buildings are tall, as in parts of all our great cities, the skyline across the line of vision is too far off to be effective. These conditions are destructive in themselves and many fine parts of modern Paris built under civic direction aided by professional artists show the same defective interest. The crooked streets, the many Church spires, the lines of buildings running at right angles to the line of sight chop up the sky into many masses. These masses are not always pleasing, but they so very commonly are that we can only account for the result in believing that the old builders, when erecting new structures, consciously avoided spoiling the view, realizing that the frame effects the picture. They may not have understood design as such, but they felt what was beautiful and aimed at it. Is it too late to hope that, in the innumerable dis-

tricts and cities that are yet to grow in America and elsewhere, some return may be made to early respect for the skyline? Conscious planning may give us wonderful effects. It is not possible to build Cathedral spires and castle keeps but the arrangement and heights of chimneys is always at the service of the architect. The factory district of Germany is right among its most picturesque scenery and the grouping and height of the chimneys has been so carefully arranged that they rarely disturb the old lines and often have beautiful effects of their own.

So far I have spoken of the fundamental conditions which have made good skylines possible, but it must not be forgotten that when these conditions exist the artist may not realize the importance of the matter, give no thought to it and quite fail to get on plate or canvas what is freely offered. If anyone will take a reflex camera and turn it on to a good skyline and watch the changing relations of its parts as he steps sideways across from one side of the road to the other he will learn a lesson in sky designing that may lead to better picture making.

A cognate subject may be considered under this head. It often happens that we have a line of strongly illuminated buildings against a dark background of hills. Where I am now staying in the Black Forest region of Germany it is a common occurrence. When it does the contrast between buildings and hills is more marked than that of the true skyline. In a way it takes its place and should be treated in the same manner.

H. D'ARCY POWER, M. D.



HAY TIME

A PHOTOGRAPHIC DIGEST

Edited by H. D'Arcy Power, M. D.

The Practical Stereo Photography of Small Objects

(Continued from September)

It will be seen that the quantity n does not enter into the expressions (a) and (b) above. Having decided on the optical details of the stereoscope to be used, we can therefore tabulate *print width* and *image width* for various distances x of the stereo image, and these important values can be placed at the worker's disposal. This is done later on. The absence of n shows that the stereoscope does not make itself responsible for the *scale* of the image. This factor in the problem must therefore be introduced into the formulæ by means of the camera lens, to the consideration of which we now pass.

We can arrive at the focal length of the lens required by a convenient back-stairs method of approach, which has the advantage that it enables us to pick up two extremely useful formulæ on the way. If we multiply ratios 1 and 2 together we get:

$$\frac{\text{print width } nf}{\text{object width } x + f} = \text{---}$$

Since we have determined that the negatives obtained in the camera are to be suitable for direct printing without magnification or reduction, the ratio just obtained may, for our present purposes, be written:

$$\frac{\text{negative width } nf}{\text{object width } x + f} = \text{---}$$

There is an optical principle, well known to all who use copying apparatus, that if a negative is to bear to the object photographed, say, the ratio m , the *camera extension*, or distance from lens to plate, must be $F(1+m)$, and the *object distance*, or distance from lens to

object, must be $F \left(\frac{1}{m} \right)$, F being the

focal length of the lens about to be used. The ratio m in this case has just been found

to be $\frac{nf}{x+f}$. Putting this latter value in place of m we have the two working formulæ:—

$$\begin{aligned} \text{(d) Camera extension} &= F \left(1 + \frac{nf}{x+f} \right) \\ \text{(e) Object distance} &= F \left(\frac{1}{\frac{nf}{x+f}} \right) \end{aligned}$$

These perfectly general formulæ will work out accurately, no matter what may be the focal length of the lens used: and, since n and x are both now included, the distance and scale of the image will be correct. A very wide liberty is thus put in the photographer's hands if he is content with accuracy in these two particulars, as he can use any lens that at all approximates, or even that does not approximate at all, to the correct focal length. Only one lens, however, will render true *depth*, and give an image of perfect form. Depth distortion is not easy to detect unless it is extreme and if the worker is disposed to commit photographic crimes in the expectation that he will not be found out, the way is open. It is hoped, however, that in such cases he will make confession of his fault, so that the blame may be placed in the proper quarter, and the good name of stereoscopy may not suffer.

It is obvious that the *object distance* given by formula (e) above will vary directly with F . But, as stated at the beginning of our present inquiry, the

true *object distance* is $\frac{x}{n}$. We have only to equate these two values to find the exact F of which we are in search.

A PHOTOGRAPHIC DIGEST

$$\text{Object distance} = F \left(1 + \frac{x+f}{nf} \right) = \frac{S}{n} \text{ belongs to the demonstrably ac-}$$

From which we deduce the formula:

$$F = \frac{xf}{x + (n+1)f}$$

All these formulæ contain nothing but the photographer's two variables x and n and the stereoscope constant f . If x is taken as some multiple of f they are quite simple in use. In any case, it is only a moment's work to put in the values and find the result.

The first thing we learn from the lens formula just obtained is that when x is finite F must always be less than f , or that it is useless to attempt to get accurate results with a camera lens whose focal length is equal to that of the stereoscope used. It is also seen that as n increases F becomes less, or that higher magnifications of the image require shorter lenses. This is one of the reasons why the stereoscope should not be of unduly short focus. When x is practically infinite, however, as in landscape photography, the formula reduces to the expression $F=f$, and shows that for this kind of work the camera lens and the stereoscope lens should both be of the same focal length.

It will, of course, be impossible to provide a lens of exactly correct length for every value of x and n , but practical accuracy over a wide range of values can be obtained without difficulty. Table I. below, giving values of x , n , and F , is drawn up on very conservative lines, being almost precise, and shows that each lens can cover a considerable group of results.

There still remains one last factor in the problem to be considered. What is to be the separation of the taking lenses, or the extent of the side shift to be given to the camera between the left and right exposures, in order to secure the correct degrees of *perspective difference* between the left and the right prints. There is no doubt whatever that this separation or shift must vary inversely with n . The form of the expression laid down at the beginning of our inquiry—*lens separation*

curate principles of the investigation. But what value is to be assigned to S ? It has been most usefully pointed out that the separation of the eyes is less when looking at an image or object at 12 in. than when looking at infinity distance. In the one case the separation is 2.25 in.; in the other it is 2.5 or 2.6 in. The natural suggestion was made that the *lens separation* should also be less for small values of x , and should widen as the distance increases. There are some theoretical difficulties created by the fact that the eyes are not fixed points in the head, but move from side to side of their orbits as they look from left to right of the image. Nevertheless, the above suggestion, which was adopted by the writer, seems perfectly sound, and may be taken as the safest basis on which to work. The value of *eye separation* for various distances of the image is given in the fourth line of Table I. The figures are merely approximate, and are calculated on the only mathematical basis that presented itself. 2.6 in. being assumed as the infinity separation of the eyes. The worker, therefore, while being extremely careful to be pre-

cise in estimating the value of $\frac{S}{n}$, may

leave himself a little liberty as regards the decimal points. He will not be far astray, for higher values of x , as long as the S he works with is not less than that indicated in the Table and not greater than the infinity separation of 2.6 in.

The value of $\frac{S}{n}$ will be very small when

n is great, and small errors will have a proportionately greater effect upon the result. On the other hand, when n is fractional, *i. e.*, when the image is to be on a reduced scale, the *lens separation* will become large, and a slight error will not be of importance. In every case care must be taken that no rotary movement is given to the camera. The result of such movement is to make height measurements in the two prints no longer coincide, and to

introduce a kind of inaccuracy that is painful to the eyes. In taking the left and right negatives the lens axes must be kept strictly parallel.

We have now reached the end of our inquiry, so far as concerns the problems peculiar to stereo work but this article would be incomplete as an attempted practical guide if it omitted to consider the depth of focus, or degree of definition obtainable in points of the image lying at a given distance before and behind the plane of *image distance* (which we may call the principal plane) in any given case. What stop must be used to secure sharp focus over any desired depth of the image, and what time of exposure will be necessary? The question becomes pressing for high magnifications at short distances, i. e., when n is large and x small; but the difficulty that then arises is only the ordinary difficulty that attends the photography of solid objects on a scale considerably greater than that of Nature. Stereo photography introduces no new element here and adds nothing to this difficulty. As a definition of what is meant by sharp focus we may adopt the convention that an image of 12 in. is in critically sharp focus when points are represented by diffusion circles of not more than $1/100$ in. in diameter, and that as the distance of the image increases the diffusion diameter may also increase proportionately, so that at 24 in., for instance, this diameter may be $1/50$ in. This sensible practical convention is generally recognized as theoretically correct. The degree of sharpness it demands is so high that considerably greater diffusion may exist in the more distant points of the image without noticeably injuring definition.

A 1 in. depth of focus also means more than at first appears, since it is 1 in. at each side of the principal plane. A total depth of 3 or even 4 in. will then be in reasonably sharp focus all over if 1 in. of this is on the nearer side of the principal plane and the other 2 or 3 in. on the farther side. The rule will be that to secure critical sharpness as defined above over any given depth d of the image—say for a distance of 1 in. before and behind the principal plane—the effective diameter

of the stop used (not its F number) must vary inversely with n and d and directly with x^2 . If we double n or d we must halve the stop diameter and increase the exposure four times; if we double x the stop may be four times as wide and the exposure becomes immensely less, though not exactly in proportion to the square of the stop diameter. If we increase x , n , and d proportionately together, i. e., if we magnify the image and project it to a correspondingly greater distance no change will be made as regards the stop diameter, but the exposure will be somewhat lengthened. It follows that for high values of n at 12 or 16 in. either an extremely small stop must be used, involving prolonged exposure, or only a small depth of the image will have sharp definition. For a 1 in. depth of focus pin-hole apertures would be required for the magnifications of 8 and 10 at 12 in. set down near the bottom of Table I, the stop diameters being respectively .015 and .012. The magnification of 10 at 16 in. would require a stop diameter of 0.21 for the same depth of focus.

We may give three formidable-looking, but really simple formulæ that will enable the exact scientific worker to calculate in every case the aperture and relative exposure required. It will be seen that here, again, nothing enters into these expressions except the photographer's x and n , and the stereoscope constant f . d represents the required depth or distance of critical sharpness, before and behind the principal plane of the image. If this distance is 1 in. on each side of the plane then $d = 1$. It must be kept in mind that a distance d of the image will be repre-

d

sented by a distance — of the object. No

n

point of the object should therefore pro-

d

ject to a distance of more than — at the

n

nearer side of the verticals.

The formulæ as given below are adapted for use in connection with magnified images at short distances, and in all cases where d is small compared with x . When d is taken as an important fraction of x ,

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as may be done in reduced images or in natural size images at a greater distance, the more precise formulæ given in Table II. must be used.

$$\begin{aligned} \text{Diameter of stop} &= \frac{x}{1200} \times \frac{x}{n} \times \frac{1}{d} \\ F \text{ number of stop} &= \frac{1200}{x} \times \frac{1}{x+n+1} \\ nd \times \frac{1}{x} \times \frac{1}{x+n+1} &= \frac{1}{f} \\ \text{Effective } F \text{ number of stop} &= \frac{1200}{x} \times \frac{1}{x+1} \\ nd \times \frac{1}{x} \times \frac{1}{x+1} &= \frac{1}{f} \end{aligned}$$

We take a simple example to illustrate the meaning of the terms. An image, viewed through the standard stereoscope, is to be natural size at a distance of 12 in., and is to be critically sharp to a depth of 1 in. Then we have $x=12$, $n=1$, $f=4$, $d=1$. Putting these values in, we find: Diameter of stop = 0.12 in., F number of stop = 20 effective F number of stop = 25. The stop used will be numbered $F/20$, but the exposure must be calculated on the basis of $F/25$. It is important to notice that these F numbers need not vary, whether the lens used is of correct focal length or not.

H. C. BROWNE.

B. J. of Photography.

(To be concluded.)

OUR BOOK SHELVES

The Advertising Handbook

We have commented before, in these columns, on the mass of literature devoted to Advertising, Publicity, and kindred subjects. The deduction must remain the same. Only the greatness of the demand for such reading matter would encourage publishers, and nothing less than the great importance of the subject could create such a demand—for unlike fiction, this sort of text has no amusement or emotional interests of any sort to allure. Oddly enough most of the business books, especially of the sort of which we speak, show unusual literary quality and purity of language.

The "Advertising Handbook" is one of the larger volumes of its sort. Seven hundred and forty-three pages make a goodly volume. The first impression is favorable, for the flexible covers, substantial back-binding, and clean typography are all worthy of commendation. But these are after all only the dress. The text is what must carry value. And it does. To the nature of a compendium of advertising in every one of its aspects and to the mass of actual examples, is added much that being obvious is, paradoxically, least known. We refer to the many reasons for advertising in general and for particular forms of advertising,

which are given on various pages, hooked to illustrations and examples.

The author, S. Roland Hall, by no means shows the ideals and imagination of that business prophet, Babson (who deals in principles, broad and fundamental) but he has brought a conscientious research, much industry, much study and a cultured faculty in the mother tongue: All of which have aided in producing a comprehensive, pleasing, and undoubtedly a profitable book.

At the risk of prolixity and in the hope of in this small way encouraging authors of technical books to do likewise, we would repeat that the style, the diction, and the refinements generally so evident in most of the works on Advertising which it has been given us to review, are elements which in themselves must benefit the reader and establish a place for commercial reading in the cultivation and development of a complete literary taste.

As to the Advertiser—he cannot know too much, and he knows altogether too little of the subject which costs him, in the aggregate, so many millions of dollars. This book should certainly enrich his library.

McGraw-Hill Book Company, Inc., New York. Price \$5.00.

FOR THE PROFESSIONAL

In the Interests of Commercial and Portrait Photographers.

On the Avoidance of Reflection Markings in Negatives

Reflections of surrounding objects are the bugbear of the commercial operator. More or less distinct images, usually much distorted, of studio and camera are to be seen in every curve of polished objects. Shop-windows often are a source of great tribulation. The copying of pictures, whether under glass in a gallery, or oil-paintings with their varnish and projecting lumps of shiny paint, is another case in point, as is the more familiar copying in the studio or workroom of semi-matt prints, or of glossy ones which will not lie flat.

In this latter work the writer regrets to state that he has many times seen assistants in great trouble with reflections even in prints which are perfectly flat. and this fact is due to the very happy-go-lucky rule-of-thumb methods of training (?) which, unfortunately, are still very common in the profession. Even the studio portraitist experiences difficulty at times with the sitter who wears glasses, while in a great many subjects that come before the camera there are less noticeable reflections which mar the result, while not making the source of the degradation so obvious as in the case specified.

There are cases where reflections are absolutely unavoidable, but in the vast majority of subjects they may be either avoided or modified so as to render them less objectionable. In some cases the reflections may be made to improve the result, and those in which nothing at all can be done in either direction are very few indeed.

It is the object of these notes to show how the source of the reflections, not always very obvious, may be easily discovered, and, having found the origin of

the trouble, how to remove or to modify it according to the subject in hand.

It is so easy to dismiss the whole question with the axiom that "the angle of reflection is equal to the angle of incidence," but in practice that principle can be used only in a very rough and ready way, and when one is handling objects containing many curved surfaces it is no help at all. Let us first take the simplest case of all, that of copying from a flat print pinned on the copy-board. Patches of brilliant "grain" are seen in the negative that may not have been noticed on the ground-glass. For one thing it is poor economy to employ glass so coarsely ground that a fault of this kind cannot be instantly recognized. A new focussing-screen is cheaper than a couple only of spoilt plates, to say nothing of the time spent in reflections of the source of light broken up by the texture of the print itself. While obviously the light must shine upon the print in order to illuminate it for the photographing, there is no reason at all why these patches should ever occur. In order to avoid them it is necessary first of all that the camera should be always quite at right-angles to the copy-board and to arrange the lights in such positions that their actual images will never be reflected from any part of the board into the lens. Having determined this position by the means about to be described, the lights must be either permanently fixed or some arrangement must be made whereby the conditions may be exactly repeated at any time. To discover the proper positions for the lights—really quite a simple matter—it is advisable to insert a fairly short focus lens in the camera, which then is focussed so as to include the whole board on the screen. The lens and the focussing-screen are then removed from the camera. The lights having been arranged at such a sufficient dis-

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tance from the board as to illustrate it evenly, a mirror is held by an assistant flat against the copy board, while one looks through the camera from behind. In the middle of the board nothing will be seen in the mirror but a reflection of the camera front, but on moving the glass towards the margins of the board one may observe the image of the light itself at some point or other. When this is so, the lamps should be moved outwardly in a line parallel with the board until their images can no longer be seen in the mirror wherever this may be placed (always keeping it flat against the board, of course) from any point at the focussing frame of the camera while looking at the board through the latter. If the lights are then screened so that the camera front itself is not sufficiently illuminated to cause a reflection to be seen, no trouble of the kind described will ever occur, unless a print to be copied is buckled in any way. In such cases as this a refractory print may be placed in the dry-mounter for a few seconds to flatten it. If it has become creased, and has not been mounted, the trouble may be overcome by well wetting, and by putting down upon glass in the case of glossy paper. If, on the other hand, it is a matt print, it may be laid face up, after soaking, upon a waste piece of glass, and having drained a little while, strips of gummed paper may be stuck down all around it, just catching the margins of the print. In drying the paper will try to contract, and it will dry perfectly flat and in good condition for copying. If the surface must not be wetted, the same result may be gained by repeatedly moistening the back with a wet brush or sponge until it is limp.

The next problem, chosen because of its similarity to the foregoing, is that of copying pictures under glass. It happens frequently that a picture is considered too valuable, or the time is not available, to remove it from the frame. If one can place the whole thing on the copy-board arranged under the conditions just laid down all will be well, providing that the area to be copied is not larger than the copy-board provides for. These fortunate circumstances, however, seldom fall to the

lot of the photographer. The underlying principle is precisely the same, but the means to achieve the desired end differ, for the simple reason that while in the first case we were able to fix our lights conveniently, here we must take our lights pretty much as we find them. If there are windows on two adjacent sides of the room, with a dark corner between which the picture can face, then the conditions approximate very much to those laid down for a copying installation. It is rather rare, though, to find circumstances so favourable that it is possible to place the picture just as one wishes, and usually one has to be satisfied with a single source of light. Usually, however, this is sufficiently large to permit of its being split up into two by a fairly large black curtain, which is supported so that the camera is behind it and the lens peeps through a slit in the centre. This slit should be provided with a few dress-fasteners, so that it can be well closed round the lens. A peculiarly shaped dense spot on a negative may be traced to a part of such a slit being left open so that a little light crept through over the top of the camera. In fact, it has not been unknown that a bit of the red focussing cloth showing through such a curtain has been registered on a negative when (as always should be in picture copying) a panchromatic plate was used with a deep filter. People who do not trouble about such a thing as a black curtain are seldom troubled either with such markings, for the simple reason that their negatives have more or less haze from reflections all over them.

How a curtain for this purpose should be held up is a matter for individual circumstances, as well as for individual ingenuity, as it should in any case be rather larger than the subjects to be photographed, and considerably so if some distance is maintained between subject and camera. The writer has often been amused by seeing an illustration of such a curtain being held up in the manner of a banner by two men supporting a pole on either side with the avowed object of preventing reflections in a shop-window. Apart from the strictly commercial aspect of the case, that the price for a shop-

CAMERA CRAFT

window photograph seldom, if ever, permits of the transportation of two large poles and the time of three men, the technical point that makes the idea so funny is that a screen sufficiently large effectively to prevent reflection in any shop-window must be at least four times its area. Certainly, any attempt at using such a curtain would instil an element of sport into a very dull business. A window that is dressed with dark goods, and has buildings of a light nature opposite, is pretty much like a mirror, and reflections are practically unavoidable. As regards the goods, the proprietor often arranges a special display for photographing, and if a word can be got in beforehand it may be suggested that the contents should be kept as light in color as possible, and also well forward towards the glass. If the latter has had the quite recent attentions of the window-cleaner a noticeable improvement in the quality of the photograph will be effected.

Even as regards the buildings opposite the shop-window the photographer is not entirely helpless. Sometimes a standpoint a little more to one side or other avoids certain details, but there is one very helpful thing the operator can do. That is to discover the time when the sun will not be actually shining on the shop in question, but when either it is nearly upon it, or has just left it. It must be obvious that if the strongest light shines on the opposite buildings the very finest set of reflections imaginable will most certainly result. The nearer one can get to having these details in shadow the better the photograph will be. A method of finding out the time of day required was described by me in the "B. J" and the "Almanac" a few years ago under the title of "Sunshine Index." The most unreliable means of discovering the required information is to ask the people in the shop. Strange, but true. When the training of observation is made a school subject, in place of mere accumulation of second-hand information, such a difficulty should no longer obtain.

I mentioned the case of the portrait artist who has a sitter wearing glasses. Many light studios give trouble in the

form of haze over the lenses obscuring the eyes. Some operators make a practice of removing the glasses from the frames, but this plan has two objections to it. The first is that the sitter is apt to wear a strained expression when without the glasses to which he is accustomed. The second is that the detail of the eye is apt to look over-sharp. In a successful result taken normally, there is the natural expression, in addition to the eyes as one sees them through the glasses; it may be the least bit larger than life, and there is a tiny glint on the bevel edge of the lenses which shows that a glass is there. Unnoticeable details, perhaps, but the effect is quite distinct. Now except for extraordinarily curved lenses, the solution of the problem is simplicity itself. It is the same method as is used for glazed pictures. A focussing cloth hung over a head-screen or just held by an assistant in the direction the sitter is looking, wherever that may be, will be efficient prevention of all objectionable reflections. In any case one can observe the effect by looking over the camera just before exposure, so that there is no chance work about it.

When we turn to the question of polished articles the case is somewhat different. If we erect black curtains to cut off reflections the result most probably will be turned down with disgust. The black screens will show as black patches in the polished surfaces of the subject, and the larger the screens the blacker the article will look. Now polished articles should be represented as brilliantly as possible, and if it be glassware or silver they should look white, and not black. Hence in these things we actually need reflections, but not merely mirrored images of the room and its contents. Hence for this class of work it is desirable to employ quite a big area of diffusing material, as well as of reflecting surface. In fact, many who specialize in this work go so far as to construct miniature studios of diffusing material such as muslin, or even of tracing cloth, so as to get a continuous reflection, and so show the contours of the object to perfection. Such reflections as are the result of part of the subject show-

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ing in a polished surface of the same item, such as, for instance, the handle of a loving-cup, cannot be prevented, except by the expedient of airbrushing a coat of light grey paint all over. This method gives a very beautiful result, if done properly, but is quite a piece of work to do, and never gives the impression of polished silver as a natural photograph does. However, if the photograph is for the purpose of making a process-block, it is quite a good plan, and is certainly cheaper than making an "ordinary" photograph, on which the process-artist has to expend quite a lot of time and skill.

We must treat now of commercial subjects in which objectional reflections are liable to occur. These are simply legion. Almost every article which one may be called upon to photograph has some reflecting, or semi-reflecting, surface: Take the parts of a typewriter, for instance. A polished bar reflects the details of a room just as the silver cup did, but instead of these being recognizably distorted, they are spread along the full length of the bar in lines of black and white. The process artist transforms these into a beautifully graduated round or square bar, as the case may be. Then we have the enamelled black base and case. Not only do the same remarks apply, but I have found many people quite astonished when I have shown them that a surprising amount of objectionable reflections in many polished articles, including furniture, arises not from the windows or other details that may be in front, but simply *from the white background behind* which is so very frequently demanded by clients. It is far better to employ a medium tinted ground, and to block out the negative, than to photograph any polished subject of the kind against a white one, and rely on the very expensive labors of the process-

artist to make a satisfactory result. It should prove a good business proposition to demonstrate to clients that a shilling or two more spent on a photograph can easily save several times the amount in process work. Block-makers naturally encourage the employment of their "art" departments, and so the worse the photographs supplied the more profit they make. Hence many manufacturing firms seem to regard photography as only a poor sort of basis for afterwork, so that the lower the price the better. It is surprising, too, how some of them resent the time and trouble which the operator takes to secure his results in the rather peculiar conditions often provided, till they see the improved results obtained. There seems to be room for a good deal of propaganda by photographers along these lines.

These latter remarks may seem to be going off the point. When analyzed, however, the improvement in results will be found to consist mainly, if not wholly, in the handling of reflections, their avoidance or their modelling into shape. An article of this subject would not be complete without a reference to the virtues of "pan" plates and filters in curing reflections. The major portion of the light shown in the form of objectionable lights or haze on the surface of polished or half-shiny surfaces, including the very objectionable result often seen in negatives and copies from prints of the "satin" class consist of ultra-violet impressions. By "cutting-out" this light one succeeds in getting an image of the detail that lies underneath this shine, whether it be the gradations of a print, the grain of wood, or some delicate engraving on metal, which may have become swamped by the amount of reflected ultra-violet. — D. Charles, *British Journal of Photography*.

What the average business needs today is not more ways to economize but more courage to back its product persistently with advertising pregnant with selling power.—Knowledge.

It is good to keep your muscles in trim by using them, likewise your brain. Much leg work and little head work seldom adds to a salesman's salary.—Temco Pep.

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Stereo Photography

This will notify those interested, that set No. 2 of stereoscopic pictures will go forward November 15th, 1922, instead of in August. You are requested in the meanwhile to forward your slides to the Director, mounted, numbered and titled.

On account of delayed notice, I did not receive the requisite number of prints to route on date of August 15th.

Fraternally,

LOVIC MEREDITH, D. S. D.
Ruppertown, Tenn.

NEW MEMBERS

5199—Edward E. E. Sheppard, 108 Collins Ave., Miami Beach, Fla.

3 $\frac{1}{4}$ x5 $\frac{1}{2}$ and 5x7 Graflex views, Azo and glossy of general views of foliage, scenery, architecture of this vicinity, etc., prominent people, events, etc. during winter season; for anything of equal interest. Class 1.

5200—Willard H. Harting, 934 East 179th St., New York, N. Y.

3-inch square stereoscopic, Velox and Azo, glossy of park views, street scenes, snow scenes, buildings, parades, etc., for similar stereoscopic pictures or anything of interest in stereoscopic work. I desire to exchange only stereoscopic pictures. Class 1.

5201—Edna R. Gordon, 40 Marshall Road, Yonkers, N. Y.
Class 3.

5202—P. J. Tobin, P. O. Box 282, Pernambuco, Brazil, S. A.

5x7 Self toning of Studies of children, undraped, artistic; for the same. Class 1.

5203—Wolf Werner Wyszemirski, Neva Friburgo, (Estado do Rio) Brazil, S. A.

9x12 cm, 13x18 cm, 6x9, cm, and larger. Glas-light, Bromide and others of landscapes, seascapes of Brazil, animals, still life, original types, large heads, flowers and others; for genre in open air, bathing girls, sport scenes, especially swimming; all subjects showing physical progress of American feminism. Correspond in English, Portugese and German. Class 1.

RENEWAL

4926—Elmer O. Underwood, R. R. 1 Box 34, Dufur, Oregon. Class 2.

RENEWALS

5119—Edward McKenzie, 125 East 34th St., New York, N. Y.

3 $\frac{1}{4}$ x4 $\frac{1}{4}$, Azo and Cyko of Greenwich Village, New York City, N. Y. Harbor and landscapes; for landscapes, marines, portrait and figure studies. Class 1.

CHANGES OF ADDRESS

3329—Geo. R. Bunn, 3426 Walton Ave., Los Angeles, Calif.

(Was 1945 Michigan Ave., L. A., Cal.)

3531—Geo. C. Allen, 561 Main St., Hartford, Conn.
(Was 54 Kent St., Hartford, Conn.)

4632—John H. Hans, 409 Woodland Ave., Kansas City, Mo.

(Was 4024 Holms St., Kansas City, Mo.)

4647—R. L. Rodman, Fredericksburg, Texas.

(Was 2117 Logan Ave., San Diego, Cal.)

5019—Chas. A. Flanagan, Pennsylvania State Forest Academy, Mount Alton, Pa.

(Was 221 E. Lincoln St., Uniontown, Pa.)

5050—John P. Robinson, Agent A. T. & S. F. Railway, Bloom, Colorado.

(Was Raton, New Mexico.)

5193—A. Reekie, 25 London St., Dunedin, South Island, New Zealand.

(Was Auckland, New Zealand.)

NOTES AND COMMENT

A Department Devoted to the Interests of our Advertisers and Friends
In it will be found much that is new and of Interest

An advertisement in Camera Craft is an assurance of merit and reliability. It has all the dignity that place in the advertising section can give it.

In the January 1923 issue and thereafter these reading notices will be eliminated as redundant.

Reported by Wm. Wolff

Tom Shoob of Turlock is shipping peaches this month to all his friends. The writer was one of them (the friends, not the peach).

Ernest Forsmark and wife are busy in Turlock doing Kodak finishing and commercial work.

Both Mr. Landon and Potter of the drug firm of same name in Fresno, are putting on weight. (We would like their formula).

Mrs. J. A. G. Brown has taken over the Maxwell & Mudge Studio, Fresno. She will run it under the name of the Brown Studio. Her work is very fine.

Mr. Heilbron of Parsons-Heilbron spent a few days in San Francisco—first week of September, as did Mr. Winters of Crescent Foto Co.

Frank Kamiyama, the clever Japanese photographer of Fresno, has taken to fishing and swimming to regain his health. He was looking just fine the last time the writer saw him.

Selma has a new studio—that is, H. C. Jensen has moved into brand new quarters. (Good luck in your new place, H. C.)

L. M. Powell, of Hanford, who's studio burned a few months ago, is again running full blast. Every thing new.

Mr. and Mrs. C. C. King, of Tulare, just returned from their vacation in the Southland. Both looking just fine.

Among those I met in Long Beach were Shirley V. Bacon, J. F. Shinnerer, C. C. Lord and wife, Howard Wertz and Winstead Bros.—Oll busy in their respective lines.

F. W. Reed, of Pasadena, was on his vacation when writer called upon him.

C. C. Green, Pasadena, renewed his subscription to Camera Craft, (says its great).

Fred Twogood, of Riverside, was a visitor in San Francisco recently.

H. E. Lutes and H. R. Fitch, of San Diego, were on deck, but F. E. Patterson was out among the Tall Pines.

Photographic Flash-Gun

Chase & Franklin have placed upon the market their Automatic Flashlight Gun, a simple contrivance, and it will surely do the work intended. The construction is in two parts, entirely of metal and it should last for years. It is instantly put together and ready for action and as quickly taken apart for convenient packing. The flash pan itself is of generous size and will hold sufficient powder for group work. Chase & Franklin, 137½ Pacific Ave., Santa Cruz, Calif., carry an advertisement in this issue giving further particulars, you should look it up.—Advertisement.

Notice—Change of Address

The Bausch & Lomb Optical Company, of California, 154 Sutter St., San Francisco, after occupying their present location for fifteen years, will remove on September 1st, 1922 to their new location, 28 Geary Street. Their telephone number will be as before, Kearny 2398.

Photo Contest for Cash Prizes

The Editor of the "California Grape Grower" desires good photographs for illustrative purposes in his publication. He invites all subscribers to this periodical who are photographers to compete.

Pictures of any interesting subject dealing with the grape industry of California are desired. There certainly is a wealth

CAMERA CRAFT

of material around us. The vineyards, the packing houses, at the shipping stations or manufacturing plants.

The Prizes will be:

For the best photograph	\$10.00
Second prize	5.00
Third prize	2.50

Here is an opportunity to have a little fun. What is needed is a first class photograph that is interesting and instructive. Make the picture sharp and it is a good idea to print it on glossy paper. All prints used outside of the actual prize winners will be paid for at the rate of \$1.00 each.

Write to the Photographic Contest Dept. California Grape Grower, 12 Geary Street, San Francisco, California, for all particulars.

The Imperial Handbook

The Imperial Dry Plate Co. Ltd., Cricklewood, London, N. W. 2 have sent us this valuable little booklet. It is issued primarily to advertise this Company's goods and gives formulas for use with their plates; but in addition to these regular features there are some brief articles with illustrations dealing with general photographic topics.

A chapter devoted to "Studio Lighting Out of Doors" will be of interest to many readers, it has six illustrations, three of which are diagrams which show just how to work and the other three are halftones from the resultant pictures made under the directions and they are good specimens of home portraiture.

Many excellent photographs made on Imperial plates illustrate this little book under the heading of "Byways in an Old Town," and there is a remarkable instantaneous picture of the interior of "Westminster Abby" during the marriage ceremony of Princess Mary and Viscount Lascelles.

There are other bits of information worth knowing and we would advise our friends to secure one of these Handbooks which will be theirs for the asking by addressing the Company as above.

Photography at 17,000 Feet Above Sea Level.

On the morning when the tragic news was announced of the result of the final

attempt on Mount Everest by the gallant members of the 1922 Expedition the parcel of which a photograph appears below reached the head offices of Burroughs Wellcome & Co.

Protected by a succession of coverings was a tin case containing two negatives and a report from Captain Noel, the photographer to the Mount Everest Expedition, some of whose wonderful pictures of the mountain have already appeared in the press. This parcel had travelled from the Expedition's main base camp, on Rongbuk Glacier. The negatives it contained showed a general view of the camp with Mount Everest in the background and a near view of Captain Noel developing 10,000 feet of kinema film with 'Rytol'.

The entire outfit of chemicals for photography had been entrusted to Burroughs Wellcome & Co. as the result of the experience of the 1921 Exposition with 'Tabloid' Photographic Chemicals. That this trust was justified is proved by Captain Noel's report.

Main Base Camp, Mount Everest Expedition, Rongbuk Glacier, 17,000 feet, TIBET, May 5, 1922.—Advertisement.

An Invitation

Hirsch & Kaye, the well known photographic supply dealers, 239 Grant Avenue, San Francisco, extend a cordial invitation to visiting professional photographers from the country, to inspect the enlarging outfit in their recently equipped up-to-the-minute finishing plant.

The article in this issue of Camera Craft entitled "Essential Investments and the Photographer," was especially written for the professional. You should read it, and then visit the Hirsch & Kaye plant.

A New Move

Mr. Wm. Mentz, formerly in the employ of Lasky's, will be found at Marsh & Co., 712 Market Street, San Francisco. Mr. Metz, whom everybody called "Bill," will be pleased to meet his old time friends in his new location.

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PUBLIC LIBRARY

CAMERA CRAFT



SAN FRANCISCO
CALIFORNIA

Renew Your Subscription

N O W

so that your CAMERA CRAFT will come to you regularly.

A large number of subscriptions are handled at this season of the year, and, as the New Year approaches, the congestion may delay the handling of yours.

Always there is a shortage of the January issue, and many are disappointed, so send in that \$1.50 NOW.

CAMERA CRAFT was made the official organ of the Photographers' Association of California on October 9th—another reason why you should send in that \$1.50 NOW.

Camera Craft Publishing Co.

CLAUS SPRECKELS BUILDING

SAN FRANCISCO, CALIF.

CAMERA CRAFT

A Photographic Monthly

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San Francisco, California

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England	- - - - -	Squires, Bingham & Co., Shanghai
India	- - - - -	Francis Collas, 3 Wine Office Court, Fleet Street, London, E. C.
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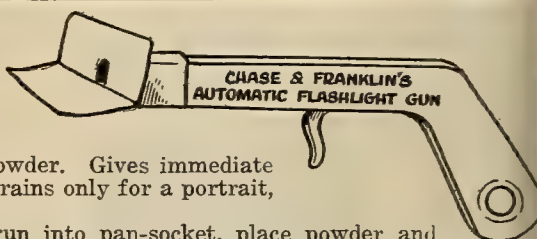
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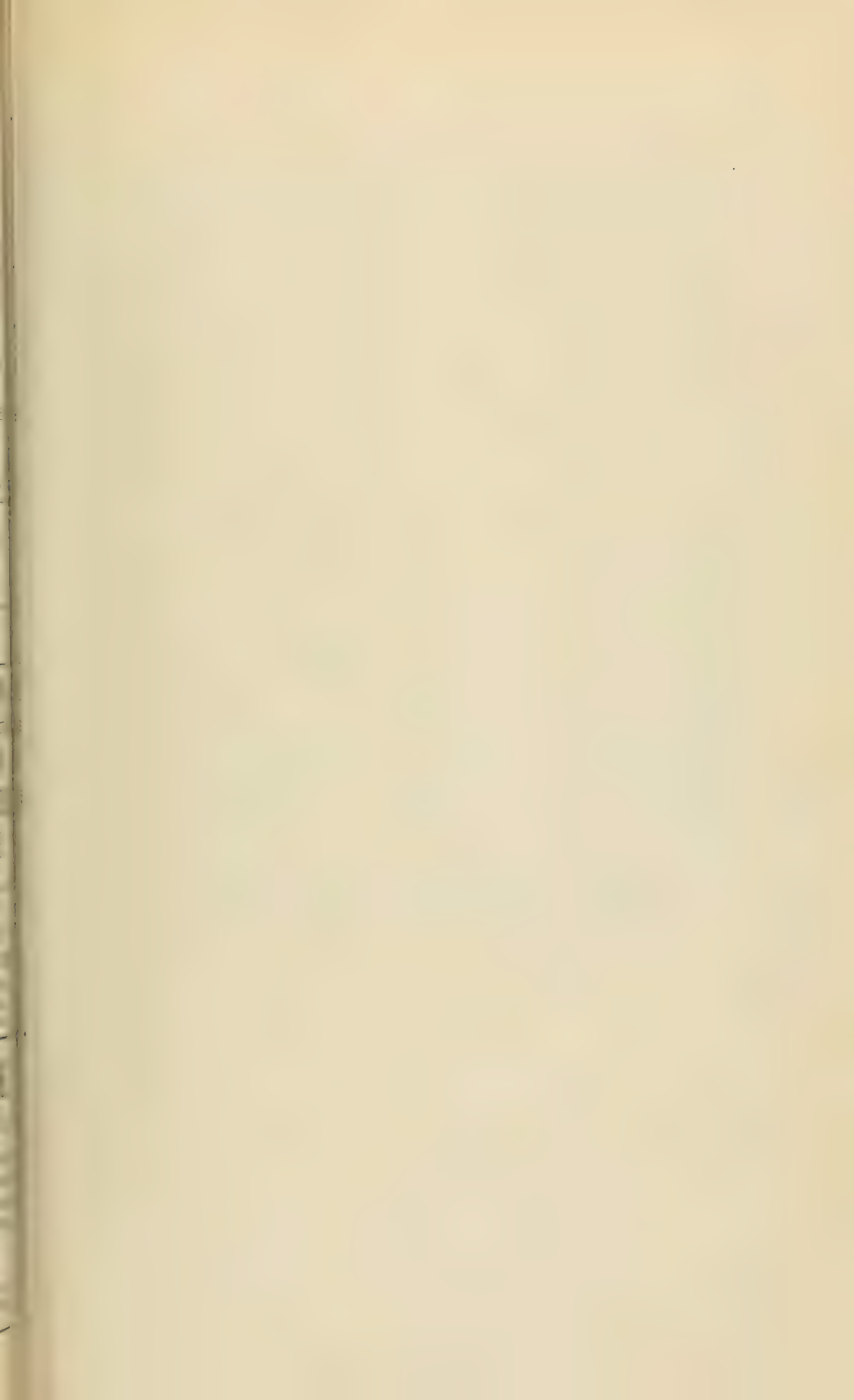
No. 183. Color Photography. By C. E. K. Mees. Illustrated.....40 cents

See these at your dealers

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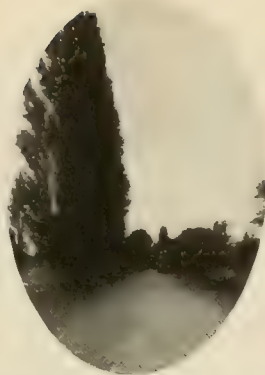




"DIVISION STREET UNDER THE L," NEW YORK
By JOHN PAUL EDWARDS

CAMERA

CRAFT



A PHOTOGRAPHIC MONTHLY

H. D'ARCY POWER, M. D.
Editor-in-Chief
CLAUS SPRECKELS BLDG.

SAN FRANCISCO

EDGAR FELLOES,
Associate Editor
CALIFORNIA

VOL. XXIX.

NOVEMBER, 1922

No. 11

Japanese Y. M. C. A. (Second Annual) Photographic Exhibition

By Edgar Felloes



With Illustrations of Some Prize Pictures

This interesting exhibition was held under the auspices of the "Japanese American" at the Y. M. C. A. building, 1409 Sutter Street, San Francisco, during the month of August.

Amateur photographers are alike all the world over in that they display the same enthusiasm and vital interest in their hobby; if anything, the Japanese is more intense in his pursuit. The present exhibition was what might be called a great little show. There were 400 pictures submitted, and from these ten prints were to be selected for prize distinction.

The jury of awards consisted of the following gentlemen: Usui Kojima, Japanese art connoisseur, manager Y. S. Bank; Saburo Moriyama, of Moriyama Photo Studio; and Edgar Felloes, Associate Editor, Camera Craft. Here is the list of the ten prize winners:

First Prize, "Water Sparks," Shojiro Ikebuchi, San Francisco, Cal.

Second Prize, "Light and Peace," Gurei Ushio, Sacramento, Cal.

Third Prize, "Oh, It's Chilly!", Shojiro Ikebuchi, San Francisco, Cal.

Fourth Prize, "Just Awake," Ryonosuke Naka, Berkeley, Cal.

Fifth Prize, "A February Evening," Ogado Sasaki, Los Angeles, Cal.

Sixth Prize, "At Monterey," Noriichi Uno, San Francisco, Cal.

Seventh Prize, "Sunday in a Fisherman's Village," Chotaro Mizutani, San Francisco, Cal.

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Eighth Prize, "Two Lodges, Please!", Sukeyoshi Ito, San Francisco, Cal.

Ninth Prize, "Before Raining," Korin Furuya, Pasadena, Cal.

Tenth Prize, "Spirit of Moonlight," Tatsumi Haseba, San Francisco, Cal.

What a wonderfully interesting thing it would be if the most advanced of these Japanese workers could be induced to try and impart some of their national art feeling to some of their photographic pictures. It would probably be necessary to select a subject that would lend itself to their method of treatment. After that, with controlled printing, I am sure the talented ones could get away with the problem. I believe such pictures would attract much attention. As it was, the many pictures I saw might have been the work of Americans, with perhaps one exception, "A February Evening," by Ogado Sasaki, Los Angeles, California. Here we have a picture of promise, a hint worth remembering on the part of experimenters.

Shojiro Ikebuchi contributes "Water Sparks," which took first prize. Our reproduction is very creditable, but in the large exhibition picture the water was really dazzling. The negative was made with a 3A special Kodak at 5 p. m. The third prize, "Oh, It's Chilly!" (not engraved), was also the work of Mr. Ikebuchi; it represents two children wading on the seashore. "Light and Peace," winner of the second prize, by Gurei Ushio, is another poetic picture, made with a Graflex camera and Verito lens, at 7 a. m. To me, this picture appears a little too woolly; the lights and darks are mixed, something that does not happen in nature.

The fourth prize fell to Ryonosuke Naka—"Just Awake," a pleasing little fancy. This artist has the germ of a good idea for a clock advertisement, and it is a pity he did not work with that end in view. This picture is not well composed. Both the little figure and the clock are too near of equal importance, and in consequence the eye becomes confused. If the clock was set more within the picture the work would have been improved. If it was intended to make an advertising picture of it, the clock should be advanced, and, of course, be presented in sharper focus.

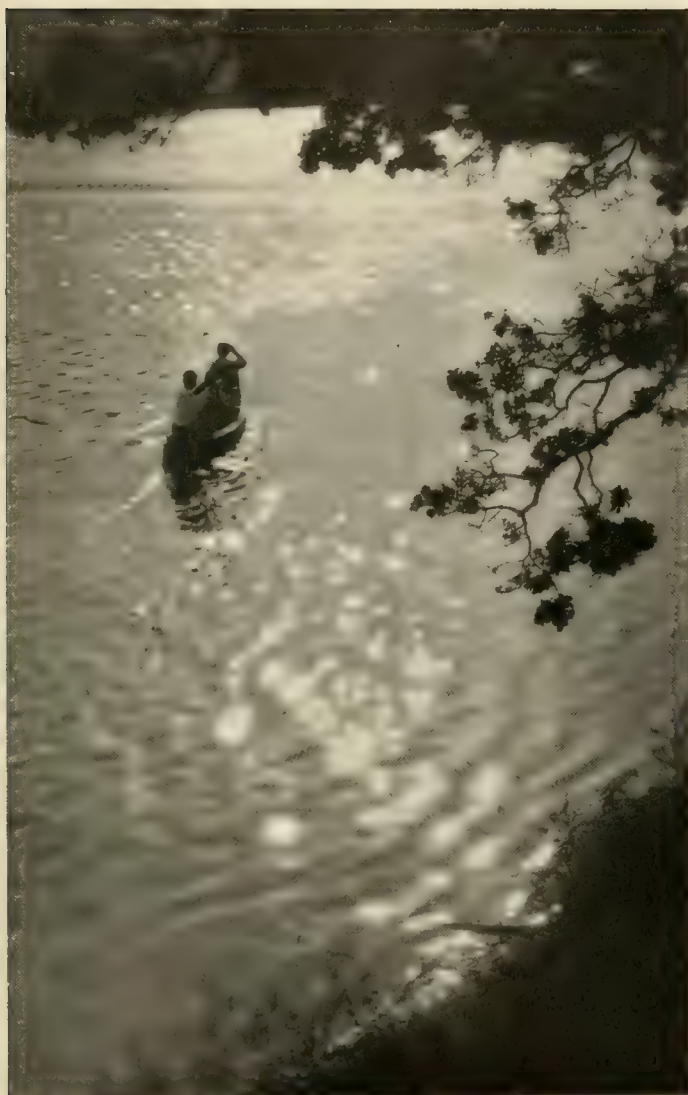
I have spoken of "A February Evening," the fifth prize-winning picture, by Ogado Sasaki. The picture of the moon is not well done; it destroys the feeling of atmosphere. A little more study of nature will help here.

I was shown the prize-winning pictures of last year's exhibition, and do not hesitate to say there was apparent a steady improvement in the quality of work this year. All concerned are to be congratulated.

Traditions are valuable only in so far as they incite to greater endeavors.—American Mutual Magazine.

Man's destiny is not to be dissatisfied but to be unsatisfied. Make each day's experience a stepping-stone toward greater efficiency for yourself and those about you.—The Dynamo.

JAPANESE Y. M. C. A. EXHIBITION



"WATER SPARKS"
First Prize
(Japanese Y.M.C.A., 1922)
By SHOJIRO IKEBUCHI
San Francisco, Cal.



The London Salon 1922

By H. D'Arcy Power, M. D.

London, England



I have just come from the Pressmen's private view, and a good view it was. Some four thousand prints were offered from all parts of the world except Germany, whose general poverty precluded a representation, a very unfortunate circumstances, as I know from having visited the Lubbeck Exhibition what a good and different contribution they could have made. Of the many pictures received, 414 were hung, and of these 414 the United States gained 119 and California 64 places. Just think of it! California more than all the States together and over 15% of the total show.

I notice some remarks on exhibition print hanging in the August number of Camera Craft. The London Salon showed a somewhat similar arrangement, but better. The walls were covered with black and the exhibits mounted on white or quite light colored mounts, these were so arranged on the black back-ground that the interval between picture and picture formed a properly proportioned black frame, plate glass covering the whole.

The most noticeable thing about the exhibition was its general high quality, and the small number of eccentricities. As to media, gum and bromoil seem to be the favorites. The most noticeable technical failures were due to over diffusion in taking or enlarging and want of clean working in printing and working up. It is useless to write individual criticisms of pictures our readers are not likely to see, but I would draw attention to the remarkable way the old workers maintain their quality and individuality. Take Alexander Keighley, whose splendid picture "The Castle Hill" dominates the whole wall both by its tonal qualities and powerful composition; or so utterly different in character the pictures of L. Misonne who amongst several of his well known type has one strikingly beautiful picture "Pour les Moissonneurs" that I would much like to see reproduced in our pages.

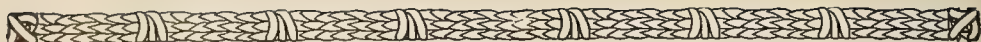
Bertram Cox, H. Cazneaux, Herbert Lambert, Farley Lewis, F. Mortimer, Pirie Macdonald, Ward Muir, Chas. Job, The Earl of Carnarvon, were well represented. I missed Demachy's work, but Major Puyo was well to the fore still turning out the delightful feminine idylls that he was producing when I met him in Paris nearly twenty years ago.

As to California, San Francisco and Bay is well represented by P. Douglas Anderson, John Paul Edwards, Louis A. Goetz, G. H. S. Harding, Dr. P. Neymann, E. L. Smith, O. C. Schulte. Los Angeles and the South no less effectively by Fred Archer, J. N. Doolittle, Louis Fleckenstein, Arthur Kales, R. E. Lewis, N. P. Moerdyke, M. Mather, E. M. Pratt, Karl Struss, Ernest Williams, J. F. Westerberg and Otis Williams.

JAPANESE Y. M. C. A. EXHIBITION



"LIGHT AND PEACE"
Second Prize
(Japanese Y.M.C.A., 1922)
By GUREI USHIO
Sacramento, Cal.



A Protest and Suggestions

By PERCY NEYMANN, Ph.D., San Francisco, California



Mr. Edgar Felloes, Editor "Camera Craft," San Francisco, Calif.
October 2, 1922.

My Dear Mr. Felloes:

With a view of ridding myself of recurrent attacks of nightmare, I want to put in writing the subject matter and causes of the above affliction. No doubt this affliction, if such it is, has afflicted and is afflicting many photographers and artists, because it has to do with the findings of their competitive work and efforts by a jury of selection, a so-called Salon Jury.

If there is anything more compositely, compoundedly complex than the conclusions of a jury of selection, I confess to having no knowledge of it. Hence my appeal for help. Possibly we are venturing upon a path unknown and leading up to the unknowable, but as seekers after truth we may at least (we may) endeavor to devise a system which will help replying to an endless series of questions in the minds of contributors to photographic salons, exhibitions.

We have to deal with pictures, the visual representations of one of the fine arts, specifically, graphic art. To define in a specific manner just what art is does not come within the scope of this communication or the knowledge of the writer, but we are told: Art is art when it appeals to our sense of beauty, our emotions, our ideals, our conceptions of that which elevates, builds up, improves and makes for ennoblement. In other words, art is expressive of human ideals in their various phases.

Confining ourselves to possibly the weakest medium of expression, the graphic, we have been told that this art is based upon certain definite rules, primarily rules of composition and of form.

In a recent conversation with your good self, I made the statement that there were no rules in art. You replied (I am quoting from memory) that there were rules, but that in the performance of stunts (photographically) they were consistently and flagrantly violated, and that the juries of selection readily accepted work representative of these. To me your reply was confirmative of my contention, for rules consistently and repeatedly broken are no longer rules; they are no longer elastic; they are null and void.

As a proof of this contention I can point to a multitude of idiosyncrasies, products of the deliberations of a jury. I doubt if any consistent contributor to photographic salons has escaped the experience of having one and the same print receive a place of merit in one salon and turned

JAPANESE Y. M. C. A. EXHIBITION



"JUST AWAKE"
Fourth Prize
(Japanese Y.M.C.A., 1922)
By RYONOSUKE NAKA
San Francisco, Cal.

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down as n. g. in another salon. To one body of critics, then, that particular print represented art in some expression, to the other body it lacked those qualifications. Personally I have submitted a certain print to an English salon; it was turned down. Through oversight I submitted this same print to the same salon the following year. It was not only presented, but received the additional mark of merit in being reproduced in the outstanding annual publication known as Photograms of the Year. Prints submitted to one salon were accepted and turned down at another salon, an experience repeatedly recorded.

To cap the climax, certain prints submitted to the jury of this year's salon of the local Pictorial Photographic Society were accepted, and when submitted to the exhibition of a local department store, The Emporium, were turned down by the jury, and that jury were the same individuals who had selected the prints of the Pictorial Photographic Society. It must be understood that there was no limit to the number of prints submitted or accepted at the later exhibition, that of the Emporium.

As you, my good friend, Mr. Editor, were a member of that jury and the other members of the jury are also personal friends, I concluded, figuratively speaking, to take a slap at the method of judging and at the fundamentals underlying the conceptions and conclusions of any salon jury. I have attempted at various times to procure information as to why one or the other of prints submitted was turned down, by asking any one juror, and I invariably received the same reply: "Well, I was not the only member of that jury." This, of course, is a mere personal item, but it applies in a general way to the attitude and psychological make-up of any jury.

Supposedly the qualifications of a juror, critic or a committee member on selections of prints for exhibition purposes are, or should be:

- (1) A broad knowledge of the art of expression.
- (2) A mind open to the various schools of expression.
- (3) A knowledge of composition and form.
- (4) An appreciation of sentiment and beauty.
- (5) Imagination, elastic and unhampered.
- (6) An eye for tone and tonal quality.
- (7) Discrimination with reference to technique.
- (8) An unflinching adherence to the strict etiquette of justice.
- (9) An absolute disregard of influence or friendship among contributors or fellow-critics.

You will agree, dear Mr. Felloes, that to select a number of men and women who thoroughly possess these qualifications is not an easy task, and that even when so selected their opinions in individual cases are as far apart as the stars of the firmament. We can not hope to control the judgment of a salon jury relative to the points of qualifications numbered 1 to 5, but we can safeguard these to some degree by a more definite adherence to the other four points 6 to 9.

With that in mind, I want to suggest a method of procedure and upon which a discussion would be of much benefit.

JAPANESE Y. M. C. A. EXHIBITION



"A FEBRUARY EVENING"
Fifth Prize
(Japanese Y.M.C.A., 1922)
By OGADO SASAKI
Los Angeles, Cal.

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It is suggested that a jury be composed of an even number of men or women or both. There may be four or six. When a print receives favorable voices of two out of four or three out of six, it should not be hung as such voicing shows reasonable doubt. The affirmative should be three out of four or four out of six. If desirable, prints in doubt can be re-viewed.

No juror should be permitted to submit prints for competition; also a juror should not have prints hung as a compliment for services or meritorious work. It should not be done because it lends prestige, and, in a measure, places him or her above par with both contributors and other jurors, manifestly not a fair procedure.

Repeated services of a juror I regard as erroneous. A juror should not serve in one and the same locality or at one and the same salon more than once in three or four years. It is obvious that a juror, like any other individual, will follow the one standard he or she has built up, and with this comes the one-sided feeling and reasoning. The mind gets into a rut, willy, nilly. Some method of alternating can readily be found.

When a jury member, a juror who has once viewed a print before it was submitted to the jury should positively refrain from voicing his or her judgment, be it one way or the other. It is not possible for a juror to change his or her mind without warping judgment and justice.

Jurors should not fraternize or combine in giving opinions, be it in an endeavor to give and take, to save time or for other less friendly causes.

To assist the jurors in judging with an open, unbiased mind, it should be made impossible at the time of judging to gain information in any way as to the maker of submitted prints. To that end the name of the maker should not be placed either upon the front or the back of mount or print. Prints should be submitted under a key number, this number being upon the entry form, and the same key number placed upon the back of each print. Where that is not done by the contributor, the secretary receiving prints and entry form can readily supply a key number.

When awards are given, other than the honor conveyed by acceptance and exhibition of prints, the jury of selection should not decide upon the prints to receive the awards. That should be done by a different personnel, by a jury of award, especially selected for that purpose.

The above, aside from minor details, is, I believe, sufficient for discussion.

There is one more phase of interest with reference to the results which a salon jury arrived at within the last few weeks. I refer to an illustration, "The Kitchen Sink," in the October, 1922, number of Camera Craft, which illustration represents the second prize given at the Emporium exhibition. I note that in writing up this exhibition you devote considerable space to the discussion of this one print, and, in a measure, having been a member of that jury, defend the giving of this award. You are quite right; it

A PROTEST AND SUGGESTIONS



Photo by Walter A. Scott
October 9th, 1922

FIRST MEETING OF THE PHOTOGRAPHERS' ASSOCIATION OF CALIFORNIA, SAN FRANCISCO, OCTOBER 9th, 1922
(See Page 541)

CAMERA CRAFT

needs defending. But why does it need defending? You have given us the answer. It is not pictorial. Why should the fact of having received the second highest award invite the construction of three imaginary triangles? Why this "eternal triangle?" If you will place before you a pair of scissors with the blades at a right angle to each other, and draw or imagine a line drawn between each of the four ends, you will have four beautiful triangles, you will have a genuine geometrical pattern, a design. If we must have triangles, I propose this convenient method of having them on hand for ready reference at jury meetings.

Now, I am not making disparaging remarks about this print. It is excellently done, there is no doubt about that; but upon what principle was it awarded a second prize out of a dozen when there were several hundred meritorious prints available? You state that it is a pattern or a design and that it is not pictorial. Does not that present sufficient reason for not awarding it a prize? I think so. Some one or two jurors must have had remarkable persuasive powers, and it is evident that their minds have a whimsical tendency, an ultra modernistic, cubistic (possibly triangulistic), futuristic (?) trend, a leaning toward the stunt.

The serious part in awarding a second prize to this kind of a print lies in the discouragement it produces for those who aim to produce work of real pictorial merit, while it encourages the stunt performers, all of which is not a benefit but a decided detriment to photography, serving well those who do not consider photography as an art.

Now, my dear friend, please consider that I have said all this merely as confirmative of the points and suggestions made above, and I hope that whatever the discussion may bring forth the result will be beneficial to the advancement of photography.

Very cordially yours,

PERCY NEYMANN, Ph.D.,

Member of the Pictorial Photographic Society of San Francisco.

A Reply to My Friend

If art had no rules, the worker could not know what to strive for. The genius, perhaps, may be above rules, but men of genius as we recognize them today are invariably well grounded in first principles which for convenience we will call rules. Rules are not detrimental; they really help when understood. We are apt to go wild without them.

I agree with Dr. Neymann, pictures accepted in one salon are frequently rejected in another, but this does not mean that the rejected picture is regarded by the jury as "N.G." What is more likely to be the case is that the picture in question did not stand so high in the second salon as in the first because of a changed environment. It would be disastrous to the interests of pictorial photography were the jury of selection

A PROTEST AND SUGGESTIONS



Stanford University vs. Olympic Club, October 7th, 1922

- No. 1—"Rabbit" Bradshaw, Olympic Club quarterback and former University of Nevada star, demonstrates how to shake off a tackle
No. 2—Shipke, Stanford left tackle, about to stop an Olympic Club half-back
No. 3—Stanford attempts an off tackle play

Photos by Allen Young

CAMERA CRAFT

to accept a picture because it was among the chosen of a prior exhibition. It is conceivable, before long, the newcomer will find his work greatly handicapped on account of many privileged pictures; there simply would not be sufficient wall space for his work. The very fact that a jury will reject certain pictures knowing them to have been accepted at other exhibitions is rather to their credit; it shows a spirit of independence which should not be confounded with ignorance.

I agree with my friend that no juror should be permitted to submit prints in competition for prizes. I might add, I have never known of such a practice. I take exception, however, to his other suggestion; it is unfair. All jurors give freely of their time and put up with inconvenience for the good of the cause. To deny any juror the little privilege of exhibiting his work after voting him to a thankless job is what Johnny would call "going some!"

With regard to the picture of the "Kitchen Sink," it is not remarkable it should have met with opposition; everything off the beaten path invites opposition—at first. People take the "new idea" too literally, which is another way of saying people in general take themselves too seriously. They fail to recognize that in the new idea there may be hidden a new thought, a valuable suggestion, but this suggestion is never for the intolerant.

I well remember when impressionism became the vogue among certain painters. The older artists decried it and those of pronounced academic leanings pointed to it with derision. But impressionism left its mark, nevertheless, and modern pictorial art shows its influence. The older workers, its strongest opponents, have since been taken care of by nature.

Many of us remember the introduction of matt surface paper; it was pronounced dead, something horrible, and a few old-timers fought it to their graves.

The sharp cutting lens was the darling at one time; the soft focus came in, and notwithstanding its abuse it has had a beneficial effect on photography.

Again, in painting, the very much ridiculed ultra modern style, the "cubistic," the "triangulistic," is anathema to most people, but why should not history repeat itself?—the good in a thing cannot die.

Stagnation is a dreadful affliction, art and photography also can suffer from it. Why go hunting with a scalping-knife—a venturesome friend?

We need pioneers. It has been contended that a work admittedly not pictorial (this was my admission) has no place in a photographic salon. I differ from this entirely. If we cannot show pictures judged to have merit by a majority of the jury of selection, in photographic salons or similar exhibitions, where could the public so readily see them? It is very desirable that the efforts of those unfettered by conventionalism should be given encouragement. And when a jury selects what to its mind is the best of these efforts and presents them, it has done a service to photography.—Edgar Felloes.



My De Luxe Enlarger

By Frank Belmont Odell
Watertown, N. Y.



With Illustrations by the Author

I am not quite sure just what De Luxe means but have always associated the phrase with things unusually good—and my enlarger is unusually good. It cost \$2.50 and while it is hardly aristocratic enough to introduce into polite society, it throws up a clean-cut, evenly illuminated image and has plenty of speed for ordinary work of the amateur worker.

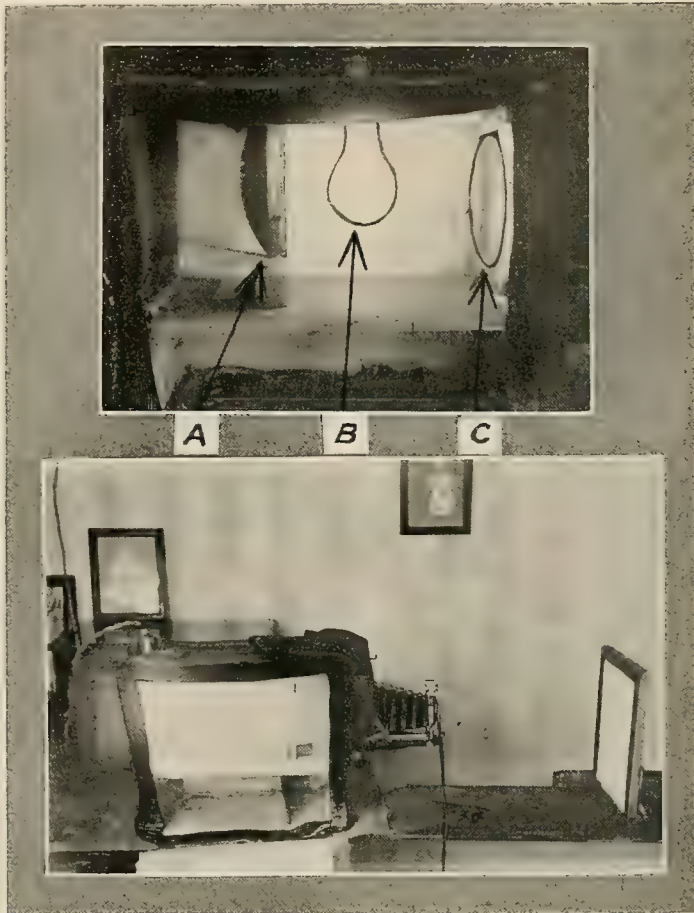
It's just a box which began its useful career ten years ago. It stood the gaff of freight traffic and originally brought a gross of bottles of something to my druggist back in 1912. About fifteen inches wide, seventeen inches long and twelve high, made of white pine, strong, light, tight and costless. One side is hinged at the bottom, opening like a door to allow adjustment of the light and other internal organs. An opening six inches square is cut through the door and covered with ruby glass for safe illuminating when the enlarger is in action. Another opening is cut through the front end and the camera is backed up against this opening and held tight with rubber bands which are one inch wide and clipped from a discarded red inner tube. Two three-inch metal brackets attached to the front just under the opening support the weight of the camera. The regular reversible back is removed from the camera and replaced by a false one made of pine strips. This false back springs into position and stays there on the same principle and for the same mechanical reasons as the regular back; but instead of holding groundglass, it has slots to receive the negatives dropped in from the top. Narrow strips of soft woolen cloth tacked around the edge of the door and the front opening keep in all the light. A single six-inch condenser is countersunk over the opening on the inside of the box, the flat side being placed toward the light. This condenser represents the only cash outlay (\$2.50) on my apparatus, the other materials were salvaged from the cellar at no expense.

The track is a pine board twelve inches wide extending from the lamp house five feet. The easel slides back and forth on this track and is kept rigid and perpendicular by moulding strips nailed to the edges of the board and projecting one inch above to form a grooved track.

The illuminant is a 75-watt Tungsten opal glass bulb—the one that helps make evenings in our living room cheerful when I am not suffering from an acute attack of enlarging fever. A bulb of higher wattage or the addition of another condenser would, of course, reduce the exposures, but

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they would also reduce your bank balance, and this story is concerning an enlarger that is priceless, yet almost costless. Fifteen seconds gives time for dodging and for thoughtful reflection, both of which are good for us and our pictures.



TOP—INTERIOR OF LAMPHOUSE—A REFLECTOR, B LIGHT, C CONDENSER
LOWER—VIEW OF ENLARGER AND EASEL.

A fellow down in the garage gladdened my heart and speeded up my exposures greatly when he gave me a thick glass reflector salvaged from a dismantled car. This reflector placed at an utterly undescrivable angle behind the light gathers up the rays of white light and shoots them forward through the condenser and negative.

The box, the bulb, the reflector and the condenser and—that's all. The rest is a matter of adjustment. Here is a good place in this story to confess that the principles of light and optics were not included in the studies at the little red school house where I matriculated; but notwithstanding this, I

MY DE LUXE ENLARGER

know some facts concerning them and know those facts supremely well, viz. They're exceedingly erratic as you will know after one session with them in the seclusion of your darkroom. In the matter of distances between light and reflector and between light and negative each enlarging



AN ENLARGEMENT OF PORTION AS SHOWN IN UPPER PICTURE

lantern seems to have an individual law all its own. First of all, you must have a perfectly clear and even circle of light projected upon your easel, else your enlargements will be secretly cremated by the same loving hands that created them, and for good and sufficient reasons which you will understand at once if you try to work without this even distribution of

CAMERA CRAFT

light. Turn on the current and look on your easel for ghosts and shadows and half-moons. You will doubtless witness quite an interesting display of unearthly shapes that will bring dismay to your heart. You will probably move the light nearer to and farther from the reflector and the negative



DOUBLE TULIP

MOUNTAIN LAUREL

CARNATIONS

a dozen times before it will spread out the light in one solid ray on your easel. You may think unkind things about the weird behavior of light. You may even make sundry uncomplimentary remarks concerning the eternal cussedness of things in general, but remember this! There is a precisely right place for the relative positions of each unit and when you

MY DE LUXE ENLARGER

have found it once, you can easily find it again through some uncanny instinct born of experience. Outside the realm of scientific data one factor is fixed and unmovable; viz., the negative should be as close as possible to the condenser, but not in contact with it. The electric wire extension should enter the lamp house in the center of the top and through a long slot, rather than a single round hole, to admit of removal backward and forward for correct adjustment. Your focus cloth folded over the top will prevent stray gleams of light coming through the unoccupied portion of the slot. The lamp house sets on the workroom table, the easel track projecting forward also on the table. My negatives are $3\frac{1}{4} \times 4\frac{1}{4}$ and under and a six inch condenser is inclined to cut off the corners. Eight inch condensers would be better.

Some mystic spell ties us to photography and, to my mind, the most charmingly alluring operation of the whole craft is these silent sessions with my enlarger. Other phazes of the sport are preliminary seed sowing all leading to the ultimate blooms—printing through the lantern.

There are many pictorial gems hidden in your old negatives, get them out—all of them—some evening and in the firelight's glow enjoy the fascinating fun of finding them. You'll need several masks of different shapes and sizes to lay over negatives under examination; for many of your gems will be found in some remote corner of an almost-discarded negative. Move the mask around over different parts to exclude confusing surroundings and a new world will open unto you.

If you know well the rules of art and you never lose your head under the excitement of composing on the ground glass, then your enlarging will be straight ahead projection of the entire negative, but methinks, that many really pictorially perfect photographs made by amateurs are mere accidents. All of mine are.



Titles on Photographic Prints

By Don C. Coleman

Lima, Ohio

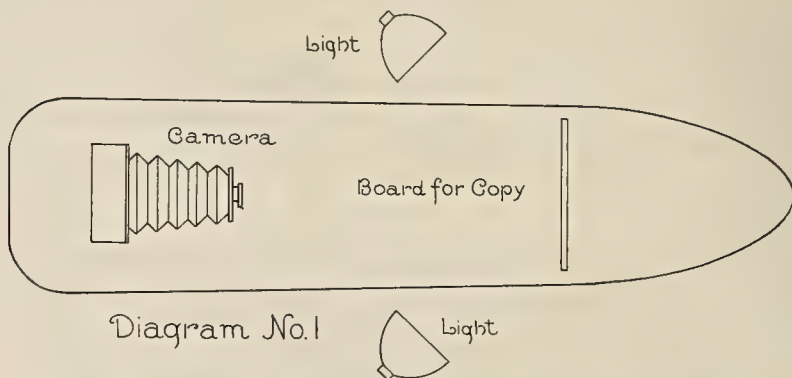


With Illustrations by the Author

A great many amateur photographers, and especially those who use their cameras for local view post cards or other work of a similar nature, often have occasion to produce prints that are titled or have an explanatory caption. The method generally employed for this work—that of lettering or writing on the negative with opaque ink, is in the writer's opinion the least satisfactory because of its many disadvantages. If the lettering is to be done on a plate negative it must be done in reverse, that is, from right to left and on the film side, requiring considerable skill to make at all a passable job. Of course with a film negative the task is not so difficult as the tilting can be done "forward" in the regular way and on the right side, but even then a great deal of trouble will be experienced as the film base is by no means a sympathetic surface for pen work.

This article is submitted in the belief that a large number of the readers of Camera Craft will be interested in a method of titling, which, while not new in principle or application, can at least be recommended because of its having been tried out in actual practice, thus saving a lot of unnecessary experimenting, and, what is more to the point, can be used by the tyro if he will exercise only ordinary care.

Our first consideration is the preparation of the copy. This may be hand lettered if one is gifted with a knack for pen or brush work or it can be set up in type by a print shop compositor. However it is done, it is



THE IRONING-BOARD SERVES ANOTHER USEFUL PURPOSE

TITLES ON PHOTOGRAPHIC PRINTS

advisable to have it several times larger than required on the print as reduction tends to make any roughness or irregularity less apparent. By way of example the initial letter A in the original drawing was about an

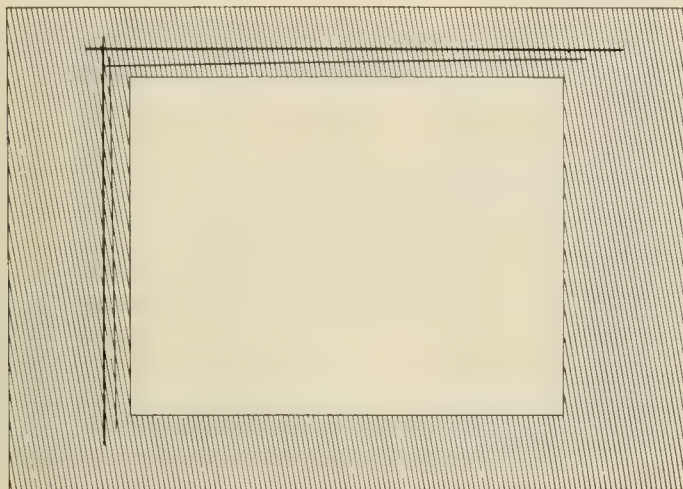


Diagram No 2

inch and three quarters in height while the length of the line Suburban Homes Company, which was set in type, was about five and one half inches.

For pen lettering Higgins' waterproof black drawing ink and Gillotte's crow-quill, 170 or 303 pen are recommended although there are many others that will answer quite as well. For those who prefer to work with a brush

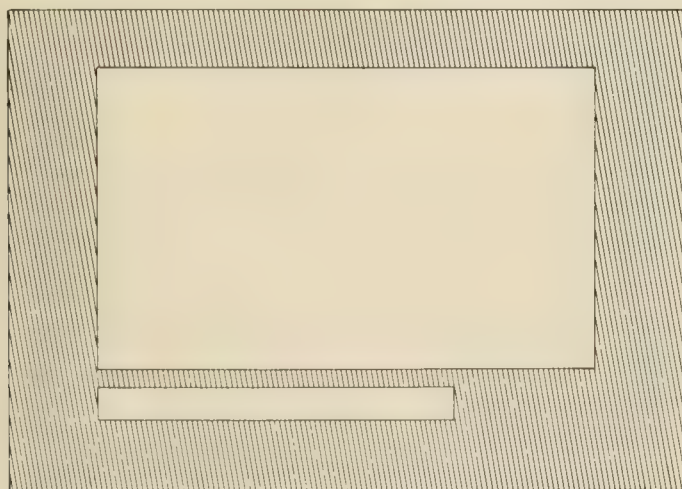


Diagram No 3

the number 4 and 6 red sable striping brushes which can be bought at most paint stores, will be found very useful for the smaller letters while the flat brushes such as sign painters use are well adapted for the larger ones.

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Destroyed Chateau, Jaulgonne—
Marne, July, 1918.

A NEAT TITLING OF POST CARDS

Most drawing inks have hardly enough body to work well with a brush but the following mixture, the proportions of which may be changed according to requirement, is quite suitable. Place a rounding teaspoonful of lamp-black in an old saucer or butter chip, add a small quantity of ordinary musilage and mix thoroughly by grinding the pigment into the musilage with a large cork. When mixed to the consistency of a smooth paste thin down with just enough water to make it spread nicely with a brush. Care should be taken not to use too much musilage or the lettering may appear shiney or even crack and peel off.

When using type matter, the copy should be printed with a good quality black ink, not the "apple-butter" which is so popular in many small print shops, and should be printed on a stiff white paper or cardboard, preferably a sheet without gloss or sheen. The aim should be for a sharp, clean-cut impression, with the letters full of color yet not having that heavy slurred effect resulting from too much ink and too much pressure.

In preparing the copy, whether by hand lettering or the use of type set matter, the purpose of the caption should not be lost sight of. As it is intended merely to describe, explain or identify the print, it should be so subordinated as not to compete with the subject in interest. For most purposes a small, neat and legible letter such as the plain Gothic is to be desired,, avoiding heavy black face styles and those embodying too many flourishes.

Having prepared the copy the next step is to photograph it. This can be done in any convenient place provided even lighting can be secured. The

TITLES ON PHOTOGRAPHIC PRINTS

writer, being otherwise employed during the day, prefers to do this work at night using an ordinary ironing board to support both the camera and a small drawing board to which the copy is attached. For illumination two sixty watt Mazda lamps in deep reflectors, one on each side of and equidistant from the copy, are used. The idea here is to approximate the method of the photo-engraver in lighting his copy with arch lights. Diagram number I shows the relative position of camera, lights and copy.

In focusing it is well to get the title matter in about the same position on the ground glass as required on the print although there is no necessity for trying to place it in exactly the same position.

Exposure will vary according to the plate used, size of image desired, power of lights, their distance from copy etc., and is best ascertained by actual experiment. A plate can be cut in strips, (an inexpensive cutter that will answer the purpose can be bought at most five and ten cent stores) and these strips used for making the tests. Sufficient exposure should be given to secure ample density yet over-exposure must be avoided as the ideal negative for this class of work is one in which the letters are represented as absolutely clear glass while all other portions are opaque. A very slow, contrast or process plate or film will yield best results and the following formula for developer, which was published in one of our contemporary photographic magazines several years ago, has given excellent negatives when using Cramer's Contrast plates:

A

Hydrochinon	160 gr.
Sodium Sulphite, dry	1 oz.
Citric Acid	60 gr.
Potassium bromide	40 gr.
Distilled water to	20 oz.

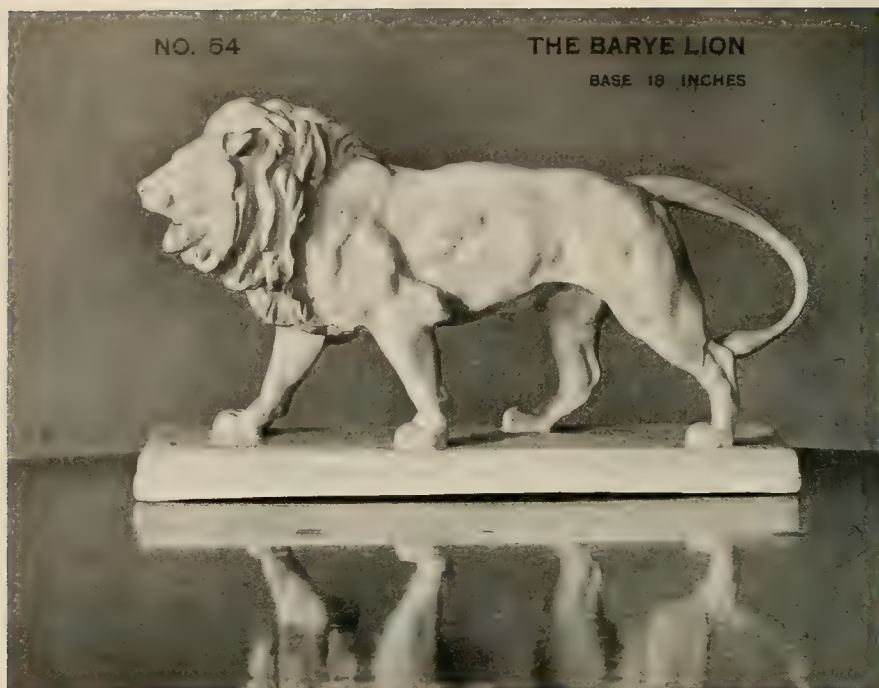
B

Caustic soda	160 gr.
Distilled water to	20 oz.

Use 1 part A, 1 part B, and 1 part water, continuing development until the clear portions just begin to veil.

For work requiring a title beneath the photograph, that is, separated from it by a white space, a mask should be cut out as shown in diagram number 3. Obviously, the larger opening is for the subject negative and the smaller one for the title negative. The later should be cut down in size until only slightly larger than its opening in the mask, then aligned in proper position over this opening and securely fastened with small pieces of adhesive tape or gummed paper. For convenience it is better to make the title negative on film if the subject negative is on film and on a plate if the subject negative is on a plate. Ordinary film, however, is not as satisfactory for black and white work as slow commercial, or process cut film, as it has a tendency to veil over in the portions that should remain clear and again some little trouble will be experienced in obtaining sufficient density to prevent "tinting" when the print is being exposed. If

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AN EXAMPLE OF DARK LETTERS ON A GRAY GROUND

the subject negative is pyro stained or very dense, requiring a great deal of time for printing, the title may have a "burned in" effect or a grey tint surrounding the letters if exposed to the light as long as would be necessary for the subject part of the print to develop properly. This can be overcome either by shading the title after it has received enough exposure to insure a clean-cut black letter, or the light over that portion may be softened by attaching one or more small pieces of tracing paper to the printing frame glass just over the title negative. By the later method both negatives will have received the correct exposure in the same length of time and one can readily see that this procedure or a modification of it would have to be employed when using most printing machines, and would be preferable when a number of prints are wanted from the same negative.

The print of the destroyed French chateau is an example of the work described above. However, it is offered merely to illustrate the point and no claim is made for it either from a technical or a pictorial stand point. Perhaps, as it is so sadly lacking in both these qualities, a word in explanation will not be out of place. It is one of many made hastily and under trying conditions during hostilities. Later while "marking time" in Germany, a number of these negatives were printed in quantities on post-cards and offered for sale in the canteens; hence the need for titles. In this particular case the titles were photographed on ordinary film, as no other was available, and developed in a strong, highly restrained solution of Rodinol.

TITLES ON PHOTOGRAPHIC PRINTS

A black letter caption or title, incorporated within the boundaries of the picture itself is a bit more difficult as it involves double printing, yet it presents no obstacle so serious that one who has had even a little print-

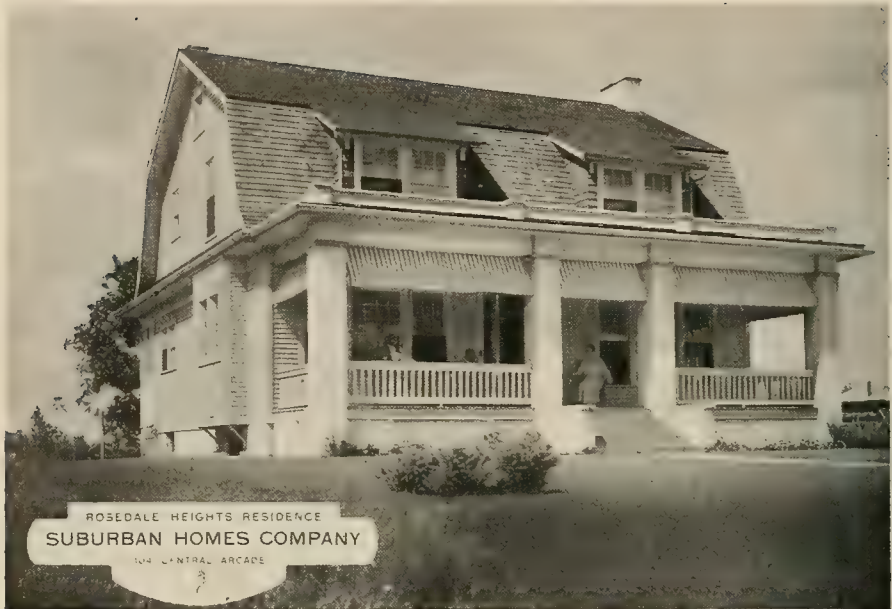


THE MAKING OF INITIAL LETTERS

ing experience need be discouraged. In this work the writer uses a 5x7 frame for printing 4x5 negatives. To hold the negative in place when using plates, a holder or kit is placed in the frame. This can be made by cutting an opening exactly the size of the negative one intends to use, from the center of a 5x7 piece of heavy card or straw board. The subject negative should be placed in the opening of the card board holder and the mask adjusted over it, being securely fastened to the holder with gummed tape. Two guide lines allowing the desired white margin are now drawn on the mask; one line regulating the horizontal margin should be parallel to the top of the cut-out part of the mask and the other line regulating the side margin should be parallel to the verticle line of the mask and on the left hand side. A second set of guide lines are also necessary for the proper placing of the title. The position of these is best ascertained by laying a piece of transparent paper the same size as the printing paper in use, to the guides already drawn and with a ruler or straight-edge marking in pencil the boundaries of the cut-out of the mask. While not absolutely necessary it is quite a help to also roughly indicate the outlines of the principal objects.

The subject negative is now removed from the holder and the title negative placed in its stead, care being taken not to loosen or move the mask. The transparent paper referred to above is now placed upon the title negative with the side drawn upon down and moved about until the lettering is properly placed within the penciled outlines, making certain that the caption is parallel to the horizontal lines. Now without moving the tracing paper, guide lines should again be drawn, one at the top and one along the left side of this paper; these are the guides for use when printing from the title negative. It is all much more simple in actual practice than it sounds here but by refering to diagram No. 2, which was made directly from the mask used in printing the Bayre Lion illustration, one can see at a

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AN EXAMPLE OF A PANELED TITLE

glance just how these guides are placed and it is at once apparent that while the guides for the two printings need not be parallel to each other (though it is possible for the work to be done so exactly that they will be) still the guides for the subject negative must be parallel to the cut-out of the mask and the horizontal guide line for the title negative must be parallel to the line or lines of lettering .

Either the subject or the title negative may be printed first but it is important for obvious reasons that the exposure for each printing be very nearly correct and that the developer is kept at approximately the same temperature.

In order to insure accurate register it is well to get into the habit of always working with the negative holder snugly against the bottom and left side of the printing frame and with the negative to the bottom and left side of its holder. It is also a good idea to make a light pencil mark on the back of the print at the guide corner, (upper left) after the first printing as this will prevent the possibility of placing the wrong edge to the guides when making the second exposure.

A few words now as to masks: the writer prefers to make his own, cutting them from fairly heavy sheets of orange paper. These can be cut exactly as wanted by first marking out with a hard lead pencil. A "T" square and triangle while not absolutely necessary are very useful in marking out and in cutting a steel straight edge or brass bound ruler should be used in order to get a smooth, clean cut. An old safety razor blade makes an excellent tool for this work, though for ones finger's sake not the double edged kind.

MY DE LUXE ENLARGER

The chief advantage of orange paper for masks is the fact that guide lines drawn upon it are easily seen even in dim ruby light. However, dim ruby light is not recommended for printing; on the contrary one should use as much diffused orange or yellow light as is consistent with safety. The accompanying illustrations, made on Azo paper, were developed in a rather strong yellow light, so strong in fact that a newspaper could be read in the printing room without discomfort.

In closing a word or two regarding the prints not as yet touched upon, may not be amiss. In preparing the initial letter A an outline drawing was first made, as shown in small cut, the letter standing out in white against a black background and the black being extended in all directions far enough to more than cover the size negative used. This drawing was then photographed on a process plate which was developed in a solution made up according to the formula given at the beginning of this article. In printing, the film negative of the scene was placed over the plate negative of the initial letter and the exposure then made. Having mounted the print, the black out-line around the A was drawn with a pen and Higgins' ink, while the grey border was painted on the mount with distemper color.

Of course the initial could have been made directly on the scenic film, obviating the necessity of making a separate negative of it but by using the method suggested above, all danger of damaging a valuable negative through scratching or staining is avoided.

The panel for the lettering on the Rosedale Heights print, one of a series for advertising real estate, was painted directly on the negative as it was intended to be used only for that one purpose. A tracing was then made as described for double printing, the out-lines of the panel being carefully gone over. This tracing was then placed over the negative of the type matter and moved about until the lettering was properly placed; following this all operations were exactly the same as those explaining the manner of placing a title within the boundaries of the print.





Neography

By the Associate Editor



With Two Illustrations from Neograms by The Inventor

Neography, though not a photographic process in itself, yet is so closely allied to photography that we are confident it will interest all those photographers who have a liking and an aptitude for drawing. The possibilities of this process in conjunction with the camera are so inviting, we think many will immediately recognize its value. We particularly draw the professional photographer's attention to neography, he will grasp the possibilities of the process in supplying him with that "something new" for the holiday trade.

We have examined several neograms both in monochrome and color made by Mr. James Carl, the inventor of neography. They were most artistic; these pictures had been on public exhibition in this city and had won much praise. The process is really simple in itself, but it is the man behind the stylus and the rag that counts.

We might add this joyful bit of news; neography is perhaps the least costly of the graphic processes, and most of the requisite material may be found in almost any photographic studio.

We acknowledge our indebtedness to the inventor for his pains in familiarizing us with his process.

Neography is a name given to a new printing process by Mr. Carl and means a new graphic method. This method enters into every field of the printing processes, such as Etching, Metzotint, Aquatint, Monotype and others besides photography. To photographers it supplies manifold mechanical means of printing effects hitherto unknown. It enables the photographer with but an elementary knowledge of drawing to produce etched portraits of landscapes, metzotint or monotypes so much in vogue in the Art World, permitting him, if he chooses, to entirely obliterate the photographic hall-mark of his print and substituting a purely individual treatment which may be transferred to any paper, leather, silk or to any other suitable surface.

Neography enables the worker to control his product, that is, to add or eliminate effects according to fancy. He is able to print in any color, in monochrome or even in multicolor with the use of one plate and really beautiful effects may be secured thereby. We have no hesitancy in attesting to this as we have seen these multicolor prints.

Camera Craft, is the first publication to be able to give its readers an

NEOGRAPHY



This neogram was worked up in broken colors of brown, yellows and neutral blue; the clouds and light portions are partially wiped out and the impression taken

account of Mr. Carl's beautiful process. He wishes all workers to become familiar with it, both amateur and professional, because of its possibilities.

Neographic prints or neograms are made in the following manner. A combination of celluloid and gelatine is used. The material being transparent can be directly traced upon by placing the design or photograph beneath it and tracing the outline of the original, in this case the photograph, with a needle or stylus, the work being done on the gelatine side and the lines are scratched and show sunken in the gelatine surface. We may confine ourselves to mere outline, or we may elaborate our work with shading either now or at a later time. The plate when inked ready for printing, but unlike the old etching process on metal, a photographer's burnisher is used in place of the costly printing press hitherto necessary for reproduction. It will be noticed that there is a certain similarity between this tracing with a needle upon the gelatine coated celluloid and the scratching or engraving into the copper plate in "dry-point" work. Indeed if the photographer so wished he could produce an entire portrait in pure lines similar to portrait etchings now existing but this requires artistic

CAMERA CRAFT

ability. The practical method for the average photographer is as follows:

Let us presume it is to be a portrait. Make a print, place this under the etching material and trace outlines, eyes, hair and such parts of the



This study was in warm blacks and grays with a suggestion of flesh color in the features; the effect was excellent

drapery as the operator wishes to produce. Rub some black or red oil paint, tube color, into the traced lines, wipe the plate with a cheese cloth so as to clean it, without disturbing the pigment retained in the lines. We now have a picture in opaque lines upon a transparent material. Now, make a negative by contact on a cut film from this transparency.

The next step is to print your portrait from the original negative, but very lightly, showing only slight modeling and faint graduations, then print through the etching negative made from the celluloid tracing upon this

NEOGRAPHY

original print (double printing) the result should show a very artistic portrait in etched effect. The registration of the two negatives is really not difficult if we adopt a system of guide lines or make a practice of printing with the same two sides of printing frame to register by. On the other hand, the photographer who is an expert copyist may have recourse to copying the first finished print and thereby duplicate his original without recourse to double printing. It would be probably better if the photographer would confine himself to one, perhaps two, original prints and push this as a novelty and charge accordingly, rather than to manufacture several copies which would only cheapen the work.

A slower method, but a more artistic one is to print direct from the celluloid plate on top of the photographic print. There are certain technical points to be observed to make this a success. We must make a reversed print from our portrait to begin with. If the negative is on film, this reversal is simplicity itself by printing from its back. From this print the tracing is made, and when the celluloid plate is etched and inked it is printed from and that printing reverses the portrait to its original position. The ink to be used in this work is the same as that employed by etchers for printing from their intaglio plates. The transfer of the inked lines to the photographic print is accomplished by passing it in contact with the plate through the burnisher. We might add that where the photographer desires to try out this method he should adopt a printing paper of matt surface to secure the best effects.

One of the most valuable aspects of neography is, the photographer or any artist can engrave from his photograph or drawing and then color the etched plate with various inks and then transfer the multicolored picture to a sheet of plain paper by passing it through the burnisher or by aid of a letter press. With the latter a rubber blanket must be used.

This article is only designed to give the reader a good idea of the workings of neography. Mr. Carl who is at present in this city exhibiting his pictures and giving instructions in his art, informs us he intends to publish a book of instructions on Neography embracing all details of manipulation. After his stay in San Francisco he plans to visit the leading cities in the United States exhibiting his pictures and forming classes for instructions in this new and beautiful process.



CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

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Albert- Lorenzo Jackson, Tacoma, Washington, died September 26th, 1922.

The photographic fraternity of the Pacific Northwest has recently lost one of its esteemed members through the death of Albert Lorenzo Jackson. Mr. Jackson was born in Knoxville, Iowa, April, 1856. He was taken by his parents to Oregon in 1860, the family traveling by oxcart, the custom in those days.

The Jacksons settled in Eugene, Oregon, and Albert became a student at the University. Later when it became necessary to decide upon a business course, young Jackson determined to follow the photographic profession. With this end in view, he worked at a studio in Eugene a

few years. At the expiration of that time he removed to Tacoma in the year 1885, where he remained in active business until the time of his death.

As a photographer, Mr. Jackson was regarded among the progressive ones; he was a man of vision. As an artist in his chosen profession he was rated high, being the winner of the Anglo Trophy and several gold medals.

Mr. Jackson was a believer in co-operation; he fully appreciated its value in the betterment of conditions affecting the photographer. It was through his efforts the Photographers' Association of the Pacific Northwest was organized, and he acted as its president for two terms.

I hold that the most important thing is not the quantity of knowledge that a man has taken in and can pour out again, but the ability he shows to use the knowledge he has acquired.—Spencer.

A PHOTOGRAPHIC DIGEST

Edited by H. D'Arcy Power, M. D.

The Practical Stereo Photography of Small Objects

(Concluded)

The practical outcome of this for the ordinary worker is that when high magnifications are attempted the smallest available stop should be used, and that the near face of the object should be placed exactly in the plane of the verticals on which he has previously focussed sharply with full aperture. Magnifications up to 20 or 25 diameters, which can be secured with a lens of 0.5 in. focus, would be extremely useful in the photography of thin transparent selections of minerals, but great skill will be required to secure the best result—the skill necessary in all microscopic work.

The following comprehensive table, covering a very wide field, sets out in easily available form the results of our inquiry as adapted for use with the suggested 4-in. stereoscope. Its use will be made clear by examples.

The figures in the same horizontal line as the number of the magnification give the focal length of the lens to be used, while the corresponding *image distance* is given in the top line vertically above the lens figure. To find the lens required for an image magnified four times at 20 in. we look vertically down from *image distance* 20, and horizontally from magnification 4. The lens required is 2 in. When the lens is exactly correct to formula the figure is enclosed in brackets. In these cases the *object distance* need not be calculated, but is simply found by dividing the *image distance* by the number of the magnification. In the above case, for instance, the *object distance* will be $20 \div 4$, or 5 in. In general, however, if the worker wishes to avoid trouble, it will be necessary to calculate both *camera extension* and *object distance* from the two formulæ obtained for that purpose, and this is easily done.

TABLE I.

For use with standard stereoscope only.					Dimensions in inches				
<i>Image distance</i>	12	16	20	24	28	36	40	56	72
<i>Image width</i>	7.5	10	12.5	15	17.5	22.5	25	35	45
<i>Print width</i>	1.88	2	2.08	2.14	2.2	2.25	2.27	2.33	2.37
<i>Eye separation</i>	2.25	2.33	2.38	2.41	2.44	2.47	2.48	2.52	2.53
<i>Magnification</i>	1.... 2.5	3	3	(3)	3	3.5	3.5	(3.5)	3.5
	2.... (2)	2.5	(2.5)	3	3	3	3		
	3.... 2	(2)	2.5	2.5	2.5	3	3		
	4.... (1.5)	2	(2)	—	2.5	2.5			
	5.... 1.5	—	2	(2)	2	2.5			
	6.... —	1.5	—	2	(2)				
	7.... —	1.5	1.5						
	8.... (1)	—	1.5						
	9.... 1	—	<i>image width</i> <i>object width</i> always = $\frac{\text{image width}}{n}$						
	10.... 1	1							
	20.... (0.5)	—	<i>eye separation</i> <i>Lens separation</i> always = $\frac{\text{eye separation}}{n}$						
	25.... —	(0.5)							

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Camera extension =

$$F(1+m), \text{ where } m = n \times \frac{1}{\frac{x}{4} + 1}$$

$$\text{Object distance} = F \left(1 + \frac{1}{m} \right)$$

$\frac{x}{4}$ will always be a whole number. There-

fore $\frac{1}{\frac{x}{4} + 1}$ will be a simple fraction. Mul-

tiply this by n , the number of the magnification, and we get m . Put this value of m into the above formulæ, and we have the dimensions required. In the case just considered where $x=20$, $n=4$, $F=2$:

$$m = 4 \times \frac{1}{5+1}, \text{ or } \frac{2}{3};$$

$$\text{camera extension} = 2 \left(1 + \frac{2}{3} \right), \text{ or } 3.33 \text{ in.};$$

$$\text{and object distance} = 2 \left(1 + \frac{3}{2} \right), \text{ or } 5 \text{ in.},$$

which in this case, since 2 in. is exactly the correct focal length, agree with the value found by simply dividing x by n . It will be seen from the table that the 2-in. lens gives a very useful series of results, many of which are exactly accurate. As already stated, this table is drawn up on strict lines, and the gaps in it may be filled by the use of the lens indicated immediately above or below the spaces without serious loss of accuracy.

For natural size images a 3-in. lens can be used for all distances of the image from 16 in. to 48 in. inclusive unless where very rigid accuracy is required, while a 3.5-in. lens will cover all distances from 30 in. practically to infinity. For images on a reduced scale a 3-in. lens will give all values of n from 0 to $\frac{1}{2}$ at 12 in. and all values of n from 0 to 1 at from 16 in. to 24 in. inclusive. No second lens, therefore, will be needed for this kind of work.

We will now imagine the photographer about to undertake some task by the aid of the table and the two formulæ set out above. The first remark that must be made deals with the artistic considerations that will influence his choice of *image*

distance. If his object is 8 in. wide he can show its natural size at 16 in. where *image width* (set down immediately beneath the *image distance* in the table) is 10 in. But it will probably be much better to choose the 20-in. distance for the image, where *image width* is 12.5 in., as this will leave sufficient room on each side for the proper arrangement and display of the object. Or he can show it on the reduced scale of $\frac{1}{2}$ at 12 in., when it will occupy only 4 in. out of the available *image width* of 7½ in. given at this distance. Similarly, if his object is 2 in. wide, he can show it multiplied three diameters at 12 in., but it will be better to choose 16 in. where there is more room. It is not necessary that a small object should be enlarged, provided that its surroundings are properly arranged, as it will simply mean that the central feature of interest in the image will only occupy a small portion of the field—a circumstance which very often has an attractive effect. The worker must exercise the same artistic restraint here as that which prevents him from filling the whole width of, say a half-plate negative with the photograph of an object which he desires to show in a pleasing way. The first thing, therefore, that the worker must do is to run his eye along the line giving *image width* until he sees a figure amply big enough to give his object room to be properly seen when presented on the chosen scale. Let us suppose, then, that he has an object 2 in. wide, and that he decides to show it multiplied three diameters at 16 in. The table tells him that the lens required is 2 in., and that this is exactly correct to formula, so that *object distance* will be 16 divided by 3, or 5.33 in. The *object width*, or distance between verticals, in all cases will be *image width* divided by n —in this case $10 \div 3$, or 3.33 in. This gives enough room for the arrangement of his 2-in. object. *Print width*, which never varies from the tabulated value, will be 2 in., while lens separation, or shift to be given to the camera, will be $2.33 \div 3$, or .78 in. Only one dimension remains to be calculated, namely, *camera extension*. The value of m will be

$$3 \times \frac{1}{4+1}, \text{ or } .6, \text{ and camera extension will}$$

A PHOTOGRAPHIC DIGEST

therefore be 2 (1+.6), or 3.2 in. It will be useful to remember that m indicates the ratio of negative to object, or gives the scale of the negative as compared with natural size.

It is taken for granted that the worker has carefully read the practical hints given in connection with the seven detailed experimental cases tabulated earlier. He will then only have to set up his verticals at 3.33 in. apart, adjust the *camera extension* and *object distance* by the lengths found above, and test on the focusing screen the accuracy of the distance between the images of the verticals, which must exactly agree with the *print width* of 2 in. given in the table. If the exposure formulæ are worked out it will be found that for a 1-in. critical depth of focus the stop used should be $F/28$, and that its effective value will be $F/45$, so that this case presents no difficulty. Using this stop, not more than 0.33 in. of the object should be at the near side of the verticals; this, magnified three times, will give the 1 in. image depth in sharp focus at the near side of the principal plane; the remainder of the image will lie at the farther side and will also be critically sharp to a distance of 1 in., and reasonably sharp to a total depth of 2 or 3 in. behind the plane.

We take one more example of a different kind, where n is fractional. Some object, about 30 in. wide, is to be presented on a reduced scale near the eyes—say at 16 in.—in order that its modelling and general conformation may be more clearly seen. (This would seem to be the chief reason why a reduced image may sometimes be desirable.) If n is taken as 1-3, the image of the 30 in. object will be 10 in. and will quite fill the *image width* available at 16 in. It will be better, there-

fore to take n as $\frac{1}{4}$ or $\frac{1}{5}$ —say the latter.

The *object width*, or distance between verticals, will then be 10 x or 50 in., which gives plenty of room for arrangement. The

value of m will be $\frac{1}{5} \times \frac{1}{4+1}$, or $\frac{1}{25}$ in.

Camera extension, with 3 in. lens, will

then be 3 $\left(1 + \frac{1}{25}\right)$, or 3.12 in.; *object*

distance will be 3 $(1 + 25)$, or 78 in. *Print width* is given by the table as 2 in. Lastly, *lens separation*, or camera shift, will be 2.33×5 , or 11.65 in. If the exposure formulæ are worked out it will be found that the indicated stop for 1 in. depth has the enormous value of $F/2.9$, and that this is practically the same as the effective stop, $F/3$. Great depth of focus and very rapid exposures therefore become possible when the image is re-

duced. In this case, since $n = \frac{1}{5}$, 5 in.

of the object may extend at the near side of the verticals. This 5 in. multiplied by

$\frac{1}{5}$ will then represent the 1 in. of the image

lying at the nearer side of the principal plane. The use of a smaller stop proportionately increases these figures. The exposure data must, however, in such cases be calculated from the formulæ given in Table II.

The great extent of the *lens separation* required in the last example might seem inevitably to lead to distorted perspective, and to result in an image so deformed as to be out of all likeness to the original object. This, however, will not be the case. The perspective effect will certainly be considerably increased because of the small scale of the image and its nearness to the eyes—this, in fact, is the reason for reducing the image; but no matter how small may be the scale, or how wide the consequent *lense separation*, there will be no distortion. A cube, correctly photographed in accordance with the working formulæ, will always remain a cube, and a sphere a sphere. Technical and artistic success in near distance images does not depend at all upon whether they are enlarged or reduced from the object. The danger lies in the fact that the eyes are so sharply converged at these distances that each eye may have a too one-sided view of the image, or that there is not sufficient common ground in both prints, and a very unpleasant effect is produced. As far as possible, the left and right views

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should not present different facts to the observer, but rather the same facts differently disposed, so that the coalescence of the two may make the whole clear, and allow the points of the image to fall into their proper relationship to each other. In almost every case there will be unavoidable obscurations, and parts of the image visible to one eye will be hidden from the other; but these obscurations, which are sometimes regarded as essential to the perspective relief of the image, are really defects, which it must be the photographer's care to make as few and inconspicuous as possible.

The following table assembles the whole of the working formulæ in their general form, available for use with any stereoscope, and in the order in which they will demand attention.

TABLE II.

Working formulæ giving accurate results by direct printing from the negatives obtained in the camera.

x =distance of image; n =degree of magnification or reduction of the image; f =focal length of stereoscope lenses; OO^1 =separation of centres of stereoscope lenses; F =focal length of camera lens used; d =depth of focus, or distance of critically sharp definition before or behind the principal plane of the image (plane of *image distance*). Sx =normal separation of eyes when looking at an object at distance x .

1. $\text{Image width} = OO^1 \times \frac{x}{f}$.
2. $\text{Object width} = \frac{\text{Image width}}{n}$.

3. Focal length of correct camera lens

$$= \frac{xf}{x + (n+1)f}$$

$$\left(\begin{array}{l} \text{Ratio of negative to object} = m = n \times \frac{f}{x+f} \end{array} \right)$$

4. $\text{Object distance} = \left(1 + \frac{1}{m} \right) F$ when F is any lens.

$$= \frac{x}{n} \text{ when } F \text{ is exactly correct by formula 3.}$$

5. $\text{Camera extension} = F(1 + m)$ when F is any lens.

$$= x \times \frac{f}{x+f} \text{ when } F \text{ is exactly correct to formula.}$$

6. $\text{Print width} = OO^1 \times \frac{x}{x+f}$.

7. Exposure formulæ.

$$\text{Diameter of stop} = \frac{x+d}{1200} \times \frac{x}{n} \times \frac{1}{d} \text{ when } F$$

is correct.

$$F' \text{ number of stop} =$$

$$nd \times \frac{1200}{x+d} \times \frac{f}{x + (n+1)f} \text{ for any lens.}$$

$$\text{Effective } F' \text{ number of stop} =$$

$$nd \times \frac{1200}{x+d} \times \frac{f}{x+f} \text{ for any lens.}$$

NOTE.— $x-d$ is to be used when d is at the nearer side of the principal plane, and $x+d$ when d is at the farther side.

$$\frac{Sx}{n} \text{ (For values of } Sx \text{ see Table I.)}$$

H. C. BROWNE.
—B. J. of Photography.

A Very Rapid Fixing Bath

The following will be found of value, especially to commercial photographers. We are indebted to Mr. G. A. Lindsay, the well-known photographic demonstrator, now with Howland & Dewey Co., 545 Market Street, San Francisco:

Water	80 ounces
Hypo	24 "
Ammonium Chloride	5 "
Bi Sulphite Soda	3¾ "

FOR THE PROFESSIONAL

In the Interests of Commercial and Portrait Photographers.

PHOTOGRAPHERS' ASSOCIATION OF CALIFORNIA

It has at last come about. "It can't be done!" is now hushed. The Photographers' Association of California is an actual fact and it now exists.

On Monday evening, October 9th, there assembled at the Hotel Stewart, San Francisco, seventy professional photographers and their friends; these did not believe it couldn't be done. Photographers were organized in other states—why not in California?

There was an excellent showing of photographers from the surrounding towns and the bay district. A few San Francisco portrait men were also present, not as many as there should have been, but we feel they will join later. All we needed was a good start with representative men and women from the various districts willing to take a real interest in the Association. There was a fine friendly spirit among all, a sort of "let us get together" feeling, and it was easy to see that something would surely be accomplished that very evening.

When all the places were taken at the dinner table, it had been arranged to make a flashlight of the gathering. Mr. Walter A. Scott, member of the Commercial Photographers' Association, had agreed to do this, and after the flash had been fired Mr. Scott asked the audience to look at their watches and note the time. We might add that Mr. Scott's studio is about a mile way, and on this particular night the streets were slippery from continued rain, but with running and skidding his car made good time. The picture was promised in half an hour. In about 18 minutes some of Scott's friends began to josh him—one declared the half hour had already expired—but Scott is of the cool cucumber kind; you can't phase him. A few moments later his two assistants re-

entered the hall and handed Scott a 12 x 20 print mounted and dried. And Mr. Scott stood up and said: "If you ladies and gentlemen will look at your watches, you will see the time taken is just 22 minutes." And though Scott did not say so, his look inferred, "We do this sort of thing every morning before breakfast." The hand-clapping that Scott received was most hearty, and those "mean cusses" that had badgered him were really delighted that their friend had more than made good.

At one end of the dining hall several pictures had been hung by members of the Commercial Photographers' Association of San Francisco. These were in competition and were to advertise Hills Bros. coffee. This firm had agreed to pay into the Commercial Photographers' Treasury five dollars for each firm competing, and the members themselves selected by ballot what they considered the best picture, which was to be awarded a prize purchased by Gabriel Moulin (chairman of the competition), with the money furnished him at the previous meeting.

The object of pulling off this periodical stunt at this organization dinner was to show our visiting friends, the portrait photographers, one of the methods adopted by the commercial men to add interest to their organization meetings, and to encourage a spirit of friendly rivalry among its various members. This practice and occasional dinners (Dutch treat) has proved quite popular among "the Boys," and sufficient time is set apart for business discussion at these meetings.

At the close of the dinner the Eastman Kodak Company entertained the visitors with a moving picture, A Trip Through Filmland. This lasted twenty-five minutes, and depicted the making of films at the Rochester factory. Everything was shown from the handling of the raw cot-

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ton through its various stages until we reached the perfect celluloid film. And then we were treated to the spectacle of making nitrate of silver. We saw in the picture blocks of pure silver placed in pans, and pitchers of nitric acid were poured upon them. The nitric acid didn't do a thing to that silver; it just melted away like lump sugar in hot water. The audience was silent. It was a sad, sad audience. All knew that bread, beef and potatoes was another mixture that could dissolve silver perfectly.

Following the film, Laurence B. Morton, President of the Commercial Photographers' Association, called the meeting to order and the business of the evening commenced. Ralph Young, of Lothers & Young, also members of the above association, was called upon to give his experiences on the advantages of photographic organization as he found it on his Eastern tour, after having attended the National Convention at Kansas City. Edgar Felloes, Associate Editor Camera Craft, followed with some remarks on what might be expected in the way of co-operation from the National Association with regard to a loan exhibition of pictures, and the probability of bringing the School of Photography to the Coast for the summer season. L. A. Ireland, Secretary of the Commercial Photographers' Association, gave an interesting talk on the improvement of working conditions as demonstrated by organization, giving as example the printing trade, and the stabilizing effect of association. Mr. Ireland was well able to speak on this subject on account of his familiarity with his subject.

Following this, time was taken for discussion, and then came the election of officers for the new organization—Photographers' Association of California.

President

Fred A. Webster, 519 14th Street, Oakland, Calif.

First Vice-President

Henry M. Seron, 1817 Chester Ave., Bakersfield, Calif.

Second Vice-President

L. F. Terkelson, 1240 Market St., San Francisco, Calif.

Directors

M. H. Ansbro, 256 Sutter St., San Francisco, Calif.

H. Lancaster, Martinez, Calif.

R. E. Scharz, 473 14th St., Oakland, Calif.

Treasurer

Walter A. Scott, 583 Market St., San Francisco, Calif.

Secretary

Edgar Felloes, Claus Spreckels Bldg., San Francisco, Calif.

Publicity

Ralph Young (Chairman), 251 Post St., San Francisco, Calif.

We are publishing a communication from Albert J. Cook, Secretary of the P. A. of A., which will give our readers an insight to the doings of that organization.

PHOTOGRAPHERS' ASSOCIATION OF AMERICA

Office of the Secretary,

Albert J. Cook, Sewickley, Pa.

Postal Fight Progressing

The battle which the P. A. of A. has been vigorously waging for some time with a view of ultimately changing the laws in regard to certain postal regulations that have been galling to the photographer for years, will be carried into Congress at the next session if President Diehl and myself can convince Congressman Clyde Kelly, of the Committee on Post Offices and Post Roads, that this should be done. Mr. Kelly from his letter seems to favor the changes we desire, and we will certainly explain conditions as they are when we have our conference with him during the week of October 12th.

His letter would indicate a desire to aid the Association:

"Washington, D. C.

Dear Friend Cook:

I was glad to have your letter, which just came to hand.

I agree with you that there is an injustice in the classification of photographs and films under present postal rules. I will be glad to present a bill to remedy this injustice when Congress meets. I

FOR THE PROFESSIONAL

expect to be home October 12th, and will be glad to go over it with you.

With all good wishes, I am,

Sincerely yours,

CLYDE KELLY.

By next week we should be getting returns from other Congressmen who have been communicated with on the subject.

We must remember, however, that the mere presentation of a bill does not guarantee anything. We must have the membership behind us to boost, to write to their Congressmen, and to show those who make our laws that a real injustice has been and is being done the photographer under present postal regulations.

Loan Exhibit Pictures Wanted

It would certainly be appreciated if those members of whom prints were requested, for the loan exhibitions, could get them in as soon as possible.

There have been many urgent appeals for these exhibits during the last three weeks and we surely don't want to disappoint those who have requested them. In the meantime we ask those who want them to be patient, as it takes some time to make up even a small collection.

With regard to these collections, Frank Dean, of Grand Junction, Colorado, calls attention to their very great importance in the Association work, and states that this service is invaluable, as it can be rendered directly to a member. He says:

"Only I might suggest, since I have had this exhibit here, together with others, that the manner of handling same could be much improved by a set of suggestions as to the best manner to advertise and set up the pictures as well as possibly something in the way of general art talks that might be used in connection . . . Some study and publicity on the subject would help, and its real value to the Association will be an answer to the oft-repeated question of: 'What's in a membership for me?'"

With a view of getting up something of the kind that Mr. Dean suggests, I sure would appreciate suggestions and letters from those who have had these exhibits, setting forth just how they managed it and what they think is the best manner of presenting them to the public. A regular program or a choice of programs

with each exhibit would certainly increase their value to the members, as Mr. Dean suggests.

Section Enjoys Itself

Photographers journeyed from all points in Western Pennsylvania, Ohio and West Virginia to the assembly point, Elmhurst Inn, Sewickley, Pa., last Thursday evening, and certainly spent an enjoyable get-together. Prior to the banquet there were interesting demonstrations on the porch and beautiful tree-covered lawn. President James McClay presided at the banquet in the evening. (By the way, the Secretary made his first public bow before the profession, and, believe me, little fusses like the Marne and the Argonne and forty or fifty bursts of shrapnel won't have any terrors for him now.)

King Sure Learned Something

Lyman E. King, 827 Kansas Ave., Topeka, Kansas, surely appreciates the opportunity he had at the Winona Lake School of the P. A. of A. last summer, if we can judge from his letter. In part, he says:

" . . . In part, I learned the fundamentals of better portraiture. The idea of light and shade in their relationship to the interpretation of a subject is very valuable, and one a fellow can work on for a lifetime. Then the technical methods of the plate and paper rooms will certainly make this end of the work a pleasure for me. Secondly, the school established in me a confidence that I CAN, if I will think and try. Hearing and seeing the leading men of the country at the school inspired me to try with enthusiasm.

The first set of negatives that I made when I returned from the school were horrible and the next no better. Then I got busy and had a general house-cleaning in my developing room, discarded some holders, old chemicals and a peck of dirt. In the camera room a lazy shutter and a background went into the discard. I screened my skylight to get Towles' 'volume of diffused light,' and yesterday got a real set of negatives, and today I had the same luck. So that's why, right now, I want to tell you how good I am.

The Winona Lake School will sure be crowded next year.

THE AMATEUR AND HIS TROUBLES

Conducted by Edgar Felloes.

Values in Negatives

Negatives made of contrasty subjects are often faulty in their values. I refer to that class of negative over strong in the light and over thin in the shadows. This is very likely to happen when development is pushed to secure more detail in the shadows or, if the development is done in a tank the lights show too much density in comparison with the under-timed exposure in our shadows. Some novices are apt to think all such a plate needs is intensifying. A little thought should convince one that this method will not help matters, as our shadows increase in density so do our lights build up, and as a matter of fact those lights were already dense enough on coming from the developer; in consequence of this, the change is not an improvement. On the other hand, if we have recourse to reduction in the usual way, our lights are reduced at the expense of our shadows.

What we really need, then, is some way to reduce our lights and at the same time leave our shadows unchanged. The following method will do a little better than that. By this means we can reduce the strong lights and at the same time we can add a little density to our shadow detail. The reader will probably recognize the familiar copper bleacher and intensifier in this formula.

Copper sulphate	45 grains
Potassium bromide	45 "
Water	8 ounces

The negative must have been thoroughly freed from hypo, and if dry, it should have a previous soaking to secure uniform action of the bleacher.

These things having been attended to, place the negative in the bleacher and allow it to act until the highest lights show white on viewing the negative at the

back. This stage having been reached, wash the negative thoroughly for about fifteen minutes and develop with hydroquinone or a similar developer. The important point to remember in this redeveloping is, we must stop development before the highest lights are blackened all the way through. This we ascertain by examining the back of the negative.

The next step is to rinse the negative and fix it in hypo. If after fixation our high lights are still too dense, the operation may be repeated as soon as the plate or film is freed from hypo.

Carbon Printing Upon Rigid Supports

Apart from the well-known qualities of the carbon process, absolute permanence and variety of color, there is another very important one which is generally overlooked, and this is its adaptability for producing images upon surfaces which, by reason of their liability to stain or corrode, cannot be coated with the usual solutions or emulsions used upon glass or paper.

As full details of the procedure in carbon printing are to be found in every photographic manual, there is no necessity to recapitulate them here, but there are a few points to which attention may be drawn in order to prevent discouraging failures. In the first place, the tissue used should be quite freshly sensitised, in order that there may be no trace of "tint," and that it may be developed at a fairly low temperature to preclude the possibility of sticking to a properly-waxed temporary support. It is desirable, if the tissue be bought in a sensitive condition, that it be used within two or three days of its receipt. Sensitising is, however, such a simple matter, that it is better to do it at home and be independent of the post. All that is required is a five per cent solution

THE AMATEUR AND HIS TROUBLES

of bichromate of potash, to which a few drops of ammonia have been added, and one or two ferrotype plates with good surfaces, which have been rubbed with a rag moistened with petroleum and then polished until all greasiness has disappeared. After immersion in the sensitiser for from one to three minutes, according to temperature, the tissue is gently, but firmly, squeegeed upon the ferrotype and set aside to dry, care being taken that no very strong light falls upon the back. In a warm room drying will be complete in about three hours and the tissue will come away with a perfectly flat and even surface, free from streaks and unaffected by any gas or coke fumes which may have been present in the room, because the surface has been protected by the ferrotype plate as long as it was moist enough to be injured.

Prints to be transferred to ivory should be very delicate in character; hence, overprinting must be avoided. It is a good plan to print rather lightly and to commence development with water at a temperature of 80 degrees Fahr. This is to avoid washing away the more delicate half-tones. When developed, the prints should be alumed, rinsed and hung up to dry, while the ivory is being prepared for their reception.

In order to secure adherence of the carbon image to the ivory the surface of the latter must be coated with a thin film of insoluble gelatine, which is made and applied as follows:—Half an ounce of gelatine is soaked in water until well swelled, the water is poured off and eight ounces of hot water poured on. This will dissolve the gelatine; to this add 10 grains of chrome alum dissolved in two ounces of hot water, stirring or shaking well meanwhile. This solution should be poured over the ivory as in varnishing a negative, or the ivory may be immersed so that both sides are coated. The ivory is then set on edge, away from dust, until quite dry. When the coating is quite hard, the remainder of the gelatine solution should be poured into a warm dish and brought into a quite thin condition over a gas ring or stove; the print on its flexible support is immersed until limp, and then the ivory is slipped in beneath it and the two lifted

out together, brought into contact by a couple of strokes with a squeegee and set aside to dry. When dry, if the paper does not fall off, a gentle pull will detach it, and the carbon will be left firmly attached to the ivory. The picture may now be handed to the artist, who will probably prepare it for coloring by rubbing the surface down with pumice powder until the image is faint enough for his purpose. If it is to be tinted only after the fashion of a paper print, the rubbing down may be omitted.

It will be noted that when purchased one side of the ivory is evenly ground, and the other usually shows lines or saw marks. It is advisable to mark the latter with a pencil cross in one corner, to avoid mistakes in coating and transferring, as it is not easy to distinguish the sides when they are wet.

Ivory or celluloid is frequently used as a substitute for the more expensive ivory for cheap work; it is treated in exactly the same way as described for ivory. Brass or silver plates must be freshly polished and quite free from grease. A final polish with alcohol and whiting will ensure this, but care must be taken that all traces of whiting are removed from the back and edges, or they may get mixed with the substratum. Wood should have the grain filled with a good varnish, such as white copal, which, when hard, is rubbed down with pumice powder and water before coating with the substratum.

Prints may be developed upon ground opal glass without other preparation, or they may be transferred as already described. If they are to be colored it will be found advantageous to use the gelatine substratum, as this gives a continuous coating over the high-lights, making it easier to get an even wash than upon the raw surface of the opal. Glass must be coated with the gelatine substratum, or there is danger of the film scaling off. Bichromated gelatine is often used for clear glass, but the chrome-alum solution is equally effective.

In case a failure has been made in transferring, the print should be soaked in water until soft, and then as much as possible removed with a stiff nail brush.

—B. J. of Photography.

CLUB NEWS AND NOTES

Club Secretaries and others will oblige by
sending us reports for this Department

New Members for the A. C. C. of A.

Recent additions to the membership of the Associated Camera Clubs of America, the Camera Club of Cincinnati, Ohio, with headquarters at the Arno building, corner Fourth and Sycamore streets, Cincinnati, Ohio, and the San Diego (Calif.) Y. M. C. A. Camera Club.

The A. C. C. of A. Print Interchange in charge of Mr. E. Roy Monroe, of the Portland (Mo.) Camera Club, and the Lantern Slide Interchange, with Mr. W. R. Frisbie, of the New Haven Camera Club, in charge, are now en route. Twenty clubs submitted sets of prints for the Print Interchange, and fifteen clubs sent in sets for the Slide Interchange.

The Cincinnati Camera Club, while one of the younger photographic organizations, is making considerable progress under the leadership of Charles H. Partington. The Developer is the club paper, and from the contents one will realize that its mission of "developing" is being achieved. Mr. G. A. Ginter is the editor as well as secretary of the Camera Club of Cincinnati. Other club papers issued by members of the A. C. C. of A. are The Ground-Glass, Newark Camera Club. The View Finder of the California Camera Club, The Accelerator, of the Southern California Camera Club, The Exposure, of the Chicago Camera Club, and Bulletins by Orange, Elysian, Dallas and other clubs.

The Association today is comprised of thirty-four clubs in as many different cities. This list of members contains practically all of the well-founded clubs in America who are co-operating for the promotion and cultivation of the science and art of photography.

Chicago Camera Club

We learn from "The Exposure" that the members of this club are arranging

for a competent committee to select from their work such prints as should be sent to the Pittsburg and other Salons.

Members having negatives or prints on which they desire helpful advice are invited to get in touch with several of the "old competents."

The equipment committee has under consideration the installation of a costume locker for the benefit of those members who use the studio. Several drapes and costumes have been promised. This committee hopes to beg, borrow or steal what it needs. Antique swords, hats, wigs, goblets and artistic junk. Here is a chance for anyone to do a good turn.

Southern California Camera Club

On the cover of The Accelerator is an engraving of "The Bather," by Fred R. Archer. This club appears to be the first to introduce this feature. It is interesting and different, and it will give "the Boys" an insight as to the kind of photograph that reproduces best, and they have an opportunity to compare the halftones with originals. This is useful knowledge to any photographer.

We should judge there must be a little boom in autochromes; we note two articles on this subject in the present issue of "The Accelerator."

Newark Camera Club

From "The Ground-Glass" we gather the following under the heading Photographic Factographs. Better keep this; you may need it some time:

Photographic Factographs

To copy a sepia print and produce a negative with good contrasts and correct values is not a task for a ray filter. It is much better to use a Panchromatic plate without any filter at all.—American Photography.

To remove developer stains from finger nails mix up the following:

CLUB NEWS AND NOTES

A—Water, 8 ounces; pot permanganate, 1 dram. Place this in a bottle.

B—Water, 8 ounces; sodium bisulphite, 2 drams.

For use, first place fingers in solution A, which will stain them a dark red, then bleach in solution B. Wash hands in soap and water afterwards.

If these solutions are kept in well-stoppered bottles, same may be used indefinitely.—Grootenboer.

Camera Club of Cincinnati

And still they come. "The Developer" is the title of the official organ of this club. We received Vol. I, No. 2, and noting the heading to one of the columns, A Word to the Wise, we thought it possible it might have been written especially for us. We absorbed the wisdom, and here is some of it.

A Word to the Wise

Fair Lillith was taking a landscape one day,

When a rude wind with boister and bluster,

From her hands blew the focussing cloth far away,

Despite all the strength she could muster.

I rescued the cloth for the damsel so fair,

Who shyly asked me to assist her;

So I helped her secure a picture most rare,

But collected my pay—for I kissed her.

We hope to receive a copy of The Developer each month, and extend to the C. C. C. our heartiest congratulations at the club's rapid growth.

Dallas Camera Club

We clip the following paragraphs from "Proofs," this club's paper:

Come dressed as an Indian with a feather in your bonnet and a scalp at your belt—the "burlesquier" you look the better.

Flashlight photos will be taken of the chiefs in all their glory. Be sure and get in on this.

The usual scalping operation—50c per head) will take place to pay for the chow.

Remember, every man a chief! like generals in the Mexican army. Come and do your stuff.

The wigwam opens promptly at 8 p. m. If you don't have a membership card, it is because you haven't paid your dues. Ease your conscience by slipping the secretary \$4.50.



EARLY WINTER

INTERNATIONAL PHOTOGRAPHIC ASSOCIATION

A Suggestion

Camera Craft,
Gentlemen:

During my exchanges with I. P. A. members I have had a few cases where I received duplicate prints within the space of a year. Perhaps I shall not be judged out of order if I outline my plan of avoiding these errors. I have found it useful, and think some method of this sort may prove helpful if adopted by others.

First, I number all my negatives before printing from them. After having made the desired number of prints, I put about six negatives in an envelope, noting on the back thereof the numbers of the respective negatives, the subject, time of printing, paper used, and any additional information likely to be of use.

HARRY SMITH,
149 Elm Street
NEW YORK CITY

Date	No.	Date	Nos. Returned	R
4-9-22	6	5-8-22	17-84-91-92-97-99	E
		6-9-22	45-87-88-126	

I then provided myself with a six-ringed loose leaf booklet, having sheets 6 x 3½ inches, and rule them as per enclosed sample. In the first column I note the date I receive the pictures for exchange. In the second, the number received. In the third, the date I mail my exchange. And the fourth shows the number of prints sent. The fifth column I reserve for the rating of the prints received. I always reserve one extra print for my album, to show others my samples and for purposes of study and self-improvement.

The third column of my record is the key to the whole system. Only a mo-

ment's time is required to verify numbers previously sent, then turn to the album and select the pictures best suited for return; the negatives of these will be found in the file, and rest assured a brother member will be satisfied at this kind of service.

In the front of my loose-leaf book I keep a memorandum of members to whom prints are due and also the names of those owing me prints, and as soon as the proper exchange has been made the transaction is checked off as closed. This method may seem a little complicated, but once it is employed a few minutes work will keep it going.

Yours very truly,
ABNER J. STARR.

Springfield, Ohio.

This will notify those interested in getting out an album that I am preparing to have one ready at an early date, and, therefore, you are requested to forward prints for same at once. Prints not available for entry will be returned if postage is furnished.

I especially request you to forward prints, as I desire to revive the lost interest and have great things in store for the early future. Send your prints at once, so as to have them entered in the first album going out.

Fraternally yours,
G. H. BROWN,
State Album Director,
Box 333, Florence, Ala.

INTERNATIONAL PHOTOGRAPHIC ASSOCIATION

Officers of the I. P. A.

F. B. Hinman, President, Evergreen, Jefferson County, Colo.

Louis R. Murray, Chief Album Director, 927 Ford St., Ogdensburg, N. Y.

A. E. Davies, General Secretary, 1327 Grove St., Berkeley, Calif.

If there is no officer in your State, address the General Secretary

Answers to inquiries concerning membership and membership blanks will be supplied by the State secretaries. Album directors are at present acting as State secretaries in such of their respective States as have as yet no secretaries.

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Utah—John C. Swenson, A. B., Provo.

West Virginia—William E. Monroe, Box 298, Point Pleasant.

NEW MEMBERS

5204—Fred L. Dreehouse, c/o Arrowrock Dam, Barber, Idaho.

3¼ x 5½ Gloss and Matte, of hunting, Arrowrock Dam, fishing, river scenery and doubles; for the same. Class I.

5205—C. L. Holeman, Box 93, Maple Hill, Kansas. Class 2.

5206—George E. Blackford, Box 206, Sibley, Iowa. 4 x 6 or smaller, Artura of general portraiture; for portrait studies in posing, draping, genre and general portraiture. Class 1.

5207—Rodolfo S. Pique, P. O. Box 5, Cardenas, Cuba. Class 3.

5208—Blue Bell Camera Club, Room 222, 1365 Cass Ave., Detroit, Mich.

2½ x 3¼, 3¼ x 5½, 4 x 5 and enlargements, Chloride and Bromide of variety of street scenes, water front, landscape, park, clouds, etc.; for good landscapes, marines, street or architectural or records of interest. We desire to exchange but cannot guarantee to move quickly.

RENEWALS

4978—Chas E. Skeen, P. O. Box 52, McFarland, Calif.

2½ x 4¼ of beach, marine and genre; for bathing girl, draped and undraped poses. Class 1.

5029—W. L. Haemer, 349 St. John's Place, Brooklyn, N. Y.

3¼ x 4¼ to 6½ x 8½ of figure studies, landscapes, marine and still life; for the same. Only good work accepted and sent. Class 1.

5038—Mrs. Mildred B. Simmons, West Farmington, Maine.

2¼ x 3¼ and 3¼ x 4¼ of miscellaneous; for the same. Class 1.

CHANGES OF ADDRESS

1213—A. B. Davis, Box 107, Algonac, Michigan. (Was Box 308, Trenton, Mich.)

2095—G. G. Stortz, 2611 N. 8th Street, Philadelphia, Pa. (Was 2424 Germantown Ave., Philadelphia, Pa.)

3676—C. R. Lowe, Hebron, Nebraska. (Was Auburn, Nebraska.)

5084—Joseph P. Fuller, 8902 Cedar Street, Los Angeles, Cal. (Was 623 W Ave. 50, Los Angeles, Cal.)

CLASS I

Regular members or those desiring a general exchange. Such members may limit their exchange, or specify a certain class or kind of work desired, in their exchange notice. Class I members are expected to answer promptly all letters in which a stamp is inclosed for reply.

CLASS II

Members who, from lack of time or uncertainty as to address, might find it inconvenient always to reply promptly to in queries concerning exchange. Class II members will receive few, if any, unsolicited exchanges, as they are expected to acknowledge only such correspondence as they may themselves invite.

CLASS III

Members desiring to enjoy only the benefits of the Circulating Albums. All members, regardless of the Class to which they belong, in order to receive the albums, must send prints to the Director of their State or the General Circulating Albums for insertion therein. In no case are Class III members to be asked to exchange.

The word Class as used in this connection has no reference to the grade of work turned out by a member.

NOTES AND COMMENT

A Department Devoted to the Interests of our Advertisers and Friends
In it will be found much that is new and of Interest

An advertisement in Camera Craft is an assurance of merit and reliability. It has all the dignity that place in the advertising section can give it.

In the January 1923 issue and thereafter these reading notices will be eliminated as redundant.

Reported by Wm. Wolff

G. W. Reynolds, of Photo Craft Shop, Santa Cruz, has installed a Buttler Super Power Lamp for enlarging.

Petaluma to the front. The Sunset Studio (Mr. Waters, proprietor) has added a new and complete studio outfit to the equipment.

Norman Cooke, of Hartsook Studio, San Jose, sailed for Australia October 6th for a vacation.

Billy Richardson, of Northwestern Photo Supply Co., Seattle, is taking a vacation in Vancouver, B. C. "Smart boy!"

Mose Grady and wife, of Seattle, entertained the writer while in that city. Never before have I seen the Irish play pinoche the way that bunch did.

Frank Bandino, of San Francisco, has opened a new studio at 1317 Stockton street. Good luck, Frank!

G. K. Whitney, of Arcade Studio, this city, is now in Honolulu taking a much-needed rest.

Sam Ross, who for 15 years was manager of all Hartsook Studios on the coast, has taken over the management of the California Photographic Apparatus Co., Berkeley.

Sam Cohl, an old-time retoucher and photographer of San Francisco, passed beyond September 24th.

Allen Art Studios, of Oakland, now belong to the "Pako Equipment Club." Just added a printer, washer and a dryer.

Inside Information

Mr. O. H. Loomis of Savannah, Mo., sends us the following:

On January 3, 1920 there occurred a very disastrous wreck on the Chicago

Great Western railroad a few miles north of my home town of Savannah, Mo. The Kansas City papers asked me to hurry to the scene of the accident and make some pictures for the press. When I arrived at the scene there were six passenger coaches off the track, and the reported number of injured was two dead and one hundred injured. I hurriedly made several 8 x 10 views and during this time I was besieged by the passengers to send them some views of post card size. I began to wonder how I was to make so many post cards from the large plates.

As luck would have it a man came in the next day with a kodak film of post card size and I found to my great delight that he had six different views and they were all good. The kodak had saved the day for me. I went to St. Joseph that very day to the hospital where the injured were taken and obtained permission to solicit orders from the patients. I found people there whose addresses ranged from Canada to Texas. I obtained a number of good orders. Then I went to the officials of the railroad and to the train men of that division, where the wreck occurred, and then to lawyers who had the cases in court. After I had cleaned up on all the sales of postcards and the large views, I found that my sales had been \$186.00. This is just a little example of what a little hustling will do in a time like this.

The Verito Lens

Readers will be interested to know that the portraits by Mr. Will H. Towles, of Washington, D. C. which appeared in the September number of Camera Craft, were all made with a Verito lens. Mr. Towles,

NOTES AND COMMENTS

who has had years of experience in portrait photography chooses the Verito—there must be a reason!

Information on Verito—the artists' lens—may be secured from Wollensak Optical Company, Rochester, N. Y.—Adv.

A New F-4.5 Anastigmat Lens

Modern photography is largely quick work demanding brief exposures and a lens of large aperture is an essential every photographer should have. The Radar F-4.5, is such a lens and possesses all the requirements of a high speed lens, which are, briefly—critical definition, a flat field at full aperture, and brilliancy of image.

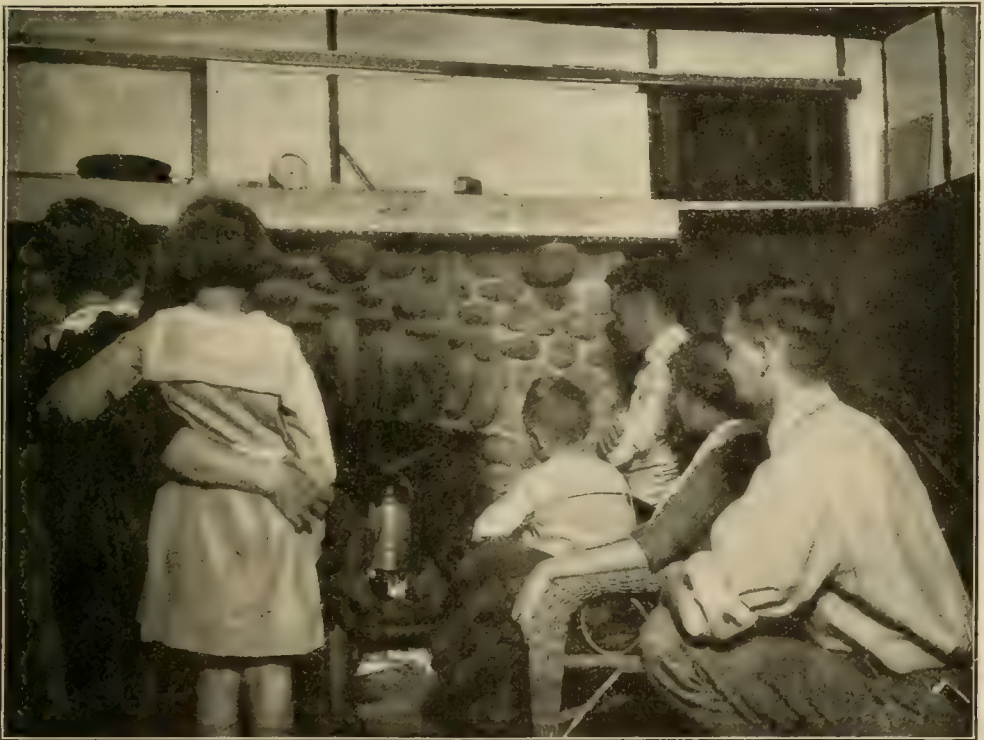
Like the Convertible Turner-Reich Anast. F-6.8, the best known of all Gundlach Products, the Radar F-4.5, is made by opticians skilled in the manufacture of photographic objectives—in fact the Gundlach Manhattan Optical Company is one of the oldest optical concerns in the country being established 37 years ago.

Literature illustrating and describing the Radar-4.5, is available and may be had on application to the Gundlach-Manhattan Optical Company, Rochester, N. Y.—Adv.

Bromoil Brushes

The subject entitled Bromoil—a Practical Article, by Mr. Louis A. Goetz, which appeared in the October number of Camera Craft, has aroused a lively interest among many readers.

The question of brushes, a matter of importance, will naturally arise. Some workers have ordered these supplies direct from Europe, expecting to secure a better article. We wish to remind our readers this is really not necessary, as Ralph Harris, 26-30 Bromfield street, Boston, carries these imported brushes. Order from him and save time. A price list of bromoil necessities is yours for the asking.—(Advertisement.)



THE PRIZE PICTURE, METEOR FLASHLIGHT COMPETITION FOR JUNE. The photograph was made by Charles H. Prior, 890 Catalina Avenue, Pasadena, California

CAMERA CRAFT

Autumn Competition

Have you a Graf lens? If you have, enter the Graf Optical Co.'s photographic competition, open to all, professional and amateur alike. The pictures may be sharp or diffused, as the worker pleases. Place your address plainly written at the back of the mount, which should not exceed 14 x 18 inches in size, and send your picture to John Wallace Gillies, 80 West 40th Street, New York City.

There are six prizes, ranging from \$100.00 to \$5.00. The competition will close December 1st, 1902.—(Advertisement.)

S. F. Camera Exchange

Since announcing their opening, the San Francisco Camera Exchange have added to their other lines an Ansco Agency and now carry a full line of Ansco Speedex Film and Cyko Papers. They can now handle orders for "anything photographic," and wish to state that mail orders will be given special attention. Those looking for used cameras and lenses should apply to this firm, San Francisco Camera Exchange, 88 Third Street, San Francisco, California.—(Advertisement.)

RECENT PATENTS

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- 1424736 Sensitized Element Package for Photographic Apparatus, W. Pak.
- 1424816 Combination Film Camera and Developing Tank, A. F. Grillone.
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- 1425980 Photographic Shutter, R. Klein.
- 1426713 Camera, J. P. Cleal
- 1426995 Process of Producing Multicolored Screens for Photography, I. Kistell.
- 1426996 Method and Apparatus for Producing Matrices and for Producing Color Screens Therefrom, I. Kistell.
- 1427546 Camera, W. A. Peters.

PHOTOGRAPHERS' ASSOCIATION OF CALIFORNIA

413 Claus Spreckels Building, San Francisco, California

—192—

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A Photographic Monthly

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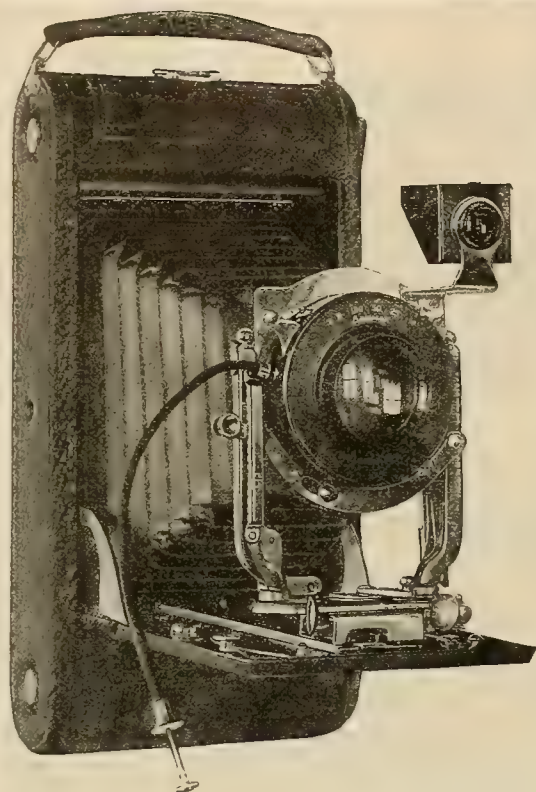
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"AT THE BRIDGE"
(Bromoil Transfer)
By A. PETERSEN
Hamburg, Germany

CAMERA



CRAFT

A PHOTOGRAPHIC MONTHLY

H. D'ARCY POWER, M. D.
Editor-in-Chief

CLAUS SPRECKELS BLDG.

SAN FRANCISCO

EDGAR FELLOES,
Associate Editor
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A Trick from the Movies

By Michael Gross



With Illustrations by the Author

With nothing is the beginner in photography so fussy as with his album—the highly-prized and sacred repository of all that has turned out best in his various snap-shot expeditions. Yet the sad fact remains that, while the amateur's collection of photographs is the first thing a visitor is asked to look through, the experience is usually a wearisome one, as nearly all guests can testify.

Nor, if the matter is looked at fairly, is it possible to censure people for this lack of appreciation of what we aspiring amateurs consider our masterpieces. The various poses of Aunt Tilly and Cousin Edna and Uncle Bill, despite the fact that we may consider them worthy of places in the French Salon, are entirely too personal to be of general interest; while the assortment of landscapes and marine views which we have lovingly labored over reveal so little connection one with another that the mind quickly becomes sated and our guests soon begin to turn the pages more out of courtesy to the host than for any pleasure that the task is giving them.

This marked lack of interest in the photographic gems of which he was so proud, used to be the bane of the writer's existence, and to find some way to overcome it soon developed into a regular mania. Better considered poses and a more careful selection of views failed to do the

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"I OUGHT TO CATCH A WHALE ON THIS
NICE, FAT, JUICY WORM"



"GOSH! I FEEL SOMETHING NIBBLING
ALREADY"

trick; tinting prints in various shades to match the subject left the audience cold; and hand-coloring, a task to which whole days and nights were given, failed to elicit even a grunt of approval.

Finally, after almost giving the thing up as a vain hope, the solution was found—at a moving picture theatre. In the early days of cinematography, when the so-called "scenics" used to form part of every performance, the identical lack of interest would be noticed by the writer, as was evidenced, on a smaller scale, when his album was being looked over.

The movie-makers, however, who no doubt felt this lack of interest in the tenderest portions of their respective anatomies—the pocketbook—discovered a solution to the riddle far more quickly than did the writer. It was not long before the old-fashioned, tiresome reels of "Views in Venice" and "Along The Nile" disappeared, to be replaced by films which had some sort of continuity to hold the attention, if it consisted only of a solitary hunter with a gun, searching for an elusive bear. This one human figure, though it might occupy but a tiny portion of the entire picture, usually lent enough suspense to the reel to keep the interest of the audience alive.

If this idea of a plot continuity in landscape worked out in the movies why shouldn't it succeed just as well in "still" photography, was the thought that naturally suggested itself and the writer proceeded to put the plan into work at once; with the result that not only did his photograph albums begin to take on new interest but he was also able to get far better pictures with much less waste of film than ever before.

A TRICK FROM THE MOVIES



"AIN'T THAT HARD LUCK? HE WAS THAT BIG—BUT HE GOT AWAY"



"THERE GOES MY FIRST BITE—BUT IT'S IN THE WRONG PLACE"

In order to more clearly get the point across, let us just contrast the old and the new methods. In his early days of haphazard photography, the writer would take his camera, a couple dozen films and be all ready for a snapshot orgy. There would be no such thing as a definite picture-taking plan in his mind—no inkling at all of what he was going after. Rather would it be a case of: "That looks like a pretty view!" SNAP. "Stand against that tree, Jim!" SNAP. "Make believe you're stealing an apple, Sue!" SNAP. "What a beautiful reflection!" SNAP.

And so it would go, until the twelve films had been used up. Then a new pack would be loaded in and the "shooting" begin all over again. Came now the mad spurt of developing and printing and into an album the photographic result of the day's excursion would go, to gather dust on the darkroom shelf for the rest of its existence.

But now, since the movie has taught its valuable lesson, we do things quite differently. Let us say, for example, that a trip to the beach is being planned, in company with Irma, the baby of the family. Naturally, the camera is going along, for what would any kind of a trip be to an amateur photographer without pictures. So we proceed to get our outfit ready—the camera, a tripod, a dozen films, the focusing cloth, **the scenario and the necessary props.**

The last two essentials are purposely printed in bold, for they are overlooked by ninety-nine out of every one hundred amateurs. And because they **are** overlooked is exactly why the albums of ninety-nine out of every



"I'LL GET A PICTURE OF THE NEXT ONE—IF I DON'T GET ANYTHING ELSE"

one hundred beginners in photography lack interest. It also explains the high mortality rate of film among camera enthusiasts.

The point having been made with all the emphasis possible, let us go on with the preparations for the suggested sea-shore trip. We spoke of a scenario, and the word exactly describes what we mean—a "script" such as a movie director uses to tell him what he is after, only, of course, not quite as elaborate or involved.

The proposed outing being to the ocean, a series of pictures showing a fishing experience immediately suggests itself. The thought seems to have possibilities, so we start on a scenario in which the catching of a fish will form the main incident. "IRMA GOES FISHING" we put down at the head of a sheet of paper, this being the tentative title of the particular album into which the twelve snapshots to be taken on the morrow will eventually be mounted. Then comes the sequence of the actual pictures and an approximate title to each, as follows:

1. Show Irma baiting hook. "I ought to catch something with this nice worm."
2. The line goes over. "Gosh! I feel a nibble already."
3. Irma illustrating size of escaped fish. "The old story—but he got away."
4. Irma scratching neck. "Another bit—but in the wrong place."
5. Irma taking picture of fish. "I'll snap the next one, anyhow."

A TRICK FROM THE MOVIES



"GOLLY! I THOUGHT I WAS PULLING UP A WHALE—AND IT'S ONLY AN OLD LOG"

6. Pulling up piece of wood. "A false alarm."
7. Surprise at fish coming up. "Well, if it ain't Mr. Blackfish."
8. Irma frying fish. "To the victor belongs the spoils."
9. Irma eating fish. "Gee, that certainly tastes good!"

The scenario mapped out, we go over it very carefully to see what props will be required, for the right way to make sure of interesting pictures, experience has taught us, is not to depend on picking up props along the road, as nearly every one does, but to prepare these in advance and bring them along.

For picture number one we find we will need a fishing line and a piece of wool to represent a worm. Pictures two, three and four require no further props. Number five will require an old camera and tripod; for six we need a small log; for seven a piece of wood carved to resemble a fish; for eight a frying pan and matches to make a fire; and for nine, a knife and fork.

The scenario drawn up and the props packed into our kit, we are ready for our excursion. We know that we are going out to take nine pictures and have given some previous thought to the posing of each one. We also feel sure that the resultant story in photographic form ought to make an interesting series.

When a visitor goes through an album made up of such a collection of pictures (granted, of course, that the title to each photograph is so

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"WELL, IF IT AIN'T OLD MR. BLACK FISH! HOW DO YOU DO? JOLLY GLAD TO SEE YOU, I'M SURE"

worded as to give suspense, life and a touch of humor to the story) he no more thinks of stopping half-way than he would of laying down a book at the most interesting chapter.

The writer has used this same plan of first mapping out a scenario and then gathering together the necessary props to carry out the story, even when going on hunting and fishing trips of several days' duration. Where such a lengthy "script" is drawn up, each individual picture is subject to change, due to unanticipated conditions that may arise, but the basic idea—the underlying theme—of the series should be preserved at all costs. Not only is there a great saving of film in such a method, by the elimination of haphazard shots, but there is also quite a bit of time saved because the photographer of the trip knows exactly what he wants, gets it, and then allows the party to proceed on its way.

This summer the writer took a four-week automobile tour through the Adirondacks and five scenarios were prepared in advance. One was a general series, to be used as illustrations for a story of the trip; the other had to do with a proposed article on camps. Instead of a regulation tent, we were taking along a piece of canvas twelve by fifteen feet, and the scenario covering this section called for a picture of the putting up and the taking down of every style of tent we contrived out of this canvas. The resultant photographs will form an article for some outdoor magazine.

A TRICK FROM THE MOVIES



"NOW FOR A BITE OF FRIED FISH"



"UM, UM SURE DOES TASTE GOOD"


Another scenario required eight stages of making a tire change, demonstrating a piece of patent equipment we had brought along. This series will sell to one of the periodicals devoted to automobiling.

These various scenarios were studied at every opportunity, and whenever a favorable moment arrived for a picture a halt was called and the necessary shot taken. Everyone realized that each photograph was desired for a definite purpose; that there would be no "try it this way" or "maybe that way would be better." The writer knew beforehand exactly what he wanted—and the rest of the party knew that he knew.

As a film-saver, as a time-saver, as a fun-giver, and last, but not least, as a means to make the finished photographs of greater interest, the writer can unqualifiedly endorse the "scenario" method of taking photographs.

Opaque Blocking-out Paste

Commercial photographers who have reason to use much opaque in blocking out negatives will find the following formula very useful and non-expensive. Obtain from the color merchant the following colors in powder form, finely ground. Red lead, chrome yellow and red ochre. Take equal parts of each and mix well together in the dry state. Then add sufficient boiling water to make a stiff paste; stir well all the time. Next, add a small quantity of office mucilage, which should be thoroughly incorporated with the pigment. Place the resultant mixture in a jar properly covered to prevent evaporation. Thin with a little water when necessary.



Frederick & Nelson Second Annual Exhibition Pictorial Photography — Seattle

By Elvira Albee



With Reproductions of Some of the Pictures

Photography has been called "The humble art," and whether or not we fully accept that definition, we do know that it may be the hand-maid of the seeing eye, serving those to whom the long, long road to higher art is barred; for without the three T's—time, technique, and the subtle touch of the painter—none may enter there.

For the third time Frederick & Nelson have made it possible for the people of Seattle and vicinity to enjoy the work of those artists who have turned to the camera as a means of self-expression.

Among the many gifts which this public-spirited firm has bestowed upon Seattle, probably none has created a more widespread interest than this annual Salon.

The high standard established and maintained has made the honor of a place upon the walls even a greater incentive for the ambitious artist than are the generous awards.

The former successful exhibits have made it a local event, and general publicity was given through the leading photographic magazines. So the opening day found a collection of the best in photographic art, contributed by representative artists of the United States and Canada.

It may be because the golden sunshine that lies beyond the Golden Gate offers uninterrupted opportunity, or perhaps it is a characteristic California enthusiasm, which does all things on a large scale. At any rate, both last year and this, the California names, like Abou Ben Adhem, and all the rest, and the prizes and honorable mentions awarded prove that the quality was equal to the quantity.

Frederick & Nelson's pleasantly lighted auditorium was an ideal setting, and the many comfortable seats provided made it possible for the genuine picture-lover to look, and rest, and look again, and, indeed, few were satisfied with a hasty survey.

The picture appeal is many-sided, not only from the standpoint of the artist and critic, but also to the plain picture lover, and the reaction of the latter is interesting, if unimportant.

To him the personality of the artist is expressed, first of all, by his choice of a subject. He catches the spirit of the worker by the effect



MOTHER AND CHILDREN
First Prize

(Seattle Salon, 1922)

By LAURA ADAMS ARMER
Berkeley, California

CAMERA CRAFT

obtained, and cares not at all for the process. He feels the mystery and charm of the tender gray and shadowy depths, and never realizes that it is a fine example of "soft focus work." He may fancy that the title adds a deeper significance, giving a glimpse into the artist's mind—revealing something of himself and the ideals which inspire his work.

Sometimes the sidelight shed by the title brings out new beauties, and, again, an unimaginative and prosaic one seems unworthy the subject.

Many of this ingenuous class mingled with that larger and more sophisticated group who knew which pictures to admire, and did so with intelligence and discretion, but probably no greater enjoyment.

The judges of the competition were:

Mr. Wayne Albee, portrait photographer, the McBride Studio.

Mr. Asahel Curtis, the Asahel Curtis Studio.

Mr. M. P. Kirkpatrick, President the Bushnell Studio.

Mr. Ambrose Patterson, Associate of Fine Arts, University of Washington.

Mr. Heinrich Roth, painter and etcher, art staff, Seattle Times.

Mr. F. Tadama, head of the Department of Painting, Seattle Art Club.

The general excellence of the pictures submitted made the task of the judges a difficult one. The pictures winning the three principal prizes were:

First prize, "Mother and Children"—Laura Adams Armer, Berkeley, California, who also captured three other prizes for her fortunate State. "Mother and Children" has a Madonna-like quality reminiscent of the old masters. To the universal appeal of the subject is added the simple dignity of the title, which suits it perfectly.

In his picture, "The Faith Healer," Carl Struss has not only won second prize, but an artistic triumph. Both treatment and conception have a fascination which would be unattainable with a less striking subject. The wonderful lighting seems truly symbolic. These pictures are worthy the appreciation accorded them.

"On the Canal, Bruges," winner of the third prize, with its long lines of "broken reflections," is pleasing and simple, and appeals strongly to the lover of unique composition. Again we must congratulate California.

There are many local pictures. Mr. Bowen has an interesting group, two of which are prize-winners.

Miss McBride shows a study of water lilies, arranged most effectively. One fully-opened blossom reveals the golden heart of the living flower; in sharp contrast is a limp and drooping bud. The title, "Life and Death," is most expressive.

"Post Office at Cropthorne, Worcestershire, England," by Percy L. A. Lines, Seattle, has all the quaint charm of English lanes abloom with May.

There are several creditable entries by Japanese artists: "Still Waters," by Mr. Koji Hoshii, awarded a prize; "The Inventor," by Mr. Nagakura, of Seattle; "The Study," by Mr. Ninomiya, Portland, winner of honorable mention.

PICTORIAL PHOTOGRAPHY—SEATTLE



THE FAITH HEALER
Second Prize
Seattle Salon, 1922)
By KARL STRUSS
Hollywood, California

CAMERA CRAFT

There are a few beautiful landscapes, trees and skies in Corot-like effect, done in soft, sepia tones. Pastoral scenes, notably the one by Sophie L. Lauffer, Brooklyn, New York, "The Lowing Herd Winds Slowly Over the Lea," which won honorable mention.

There are a few excellent character studies. "Louise," by Roy H. Heiser, of Washington, Pennsylvania, is a girl's expressive face, not too easily read, and consequently quite worth studying.

"An Old Model," by T. W. Kilmer, New York City, is that photographer's delight, a picturesque old man with a beard. And this one has also an inscrutable eye, and one is convinced that the artists for whom he poses will never impose upon him.

"Man," by John Vanderpant, New Westminster, B. C., seems almost a generic, rather than a personal portrait. A strong face, reflecting experiences and suffering bravely borne—a composite picture of life.

Of the group by John Hagemeyer, who also contributed to last year's Salon, "Castles of To-day" and "Roof City" are good examples. This artist thrills to the beating heart of the city, and loves the black smoke that belches from factory chimneys.

He represents a newer element in art, both photographic and of the pencil and palette—an element which sees and records the beauty of everyday scenes in the midst of the madding crowd.

The hundreds who visited the auditorium each day of the exhibit, enjoying the artistic arrangement of the pictures and the mellow yet adequate lighting, realized and appreciated the efforts of those who had made possible the brilliant photographic Salon of 1922.

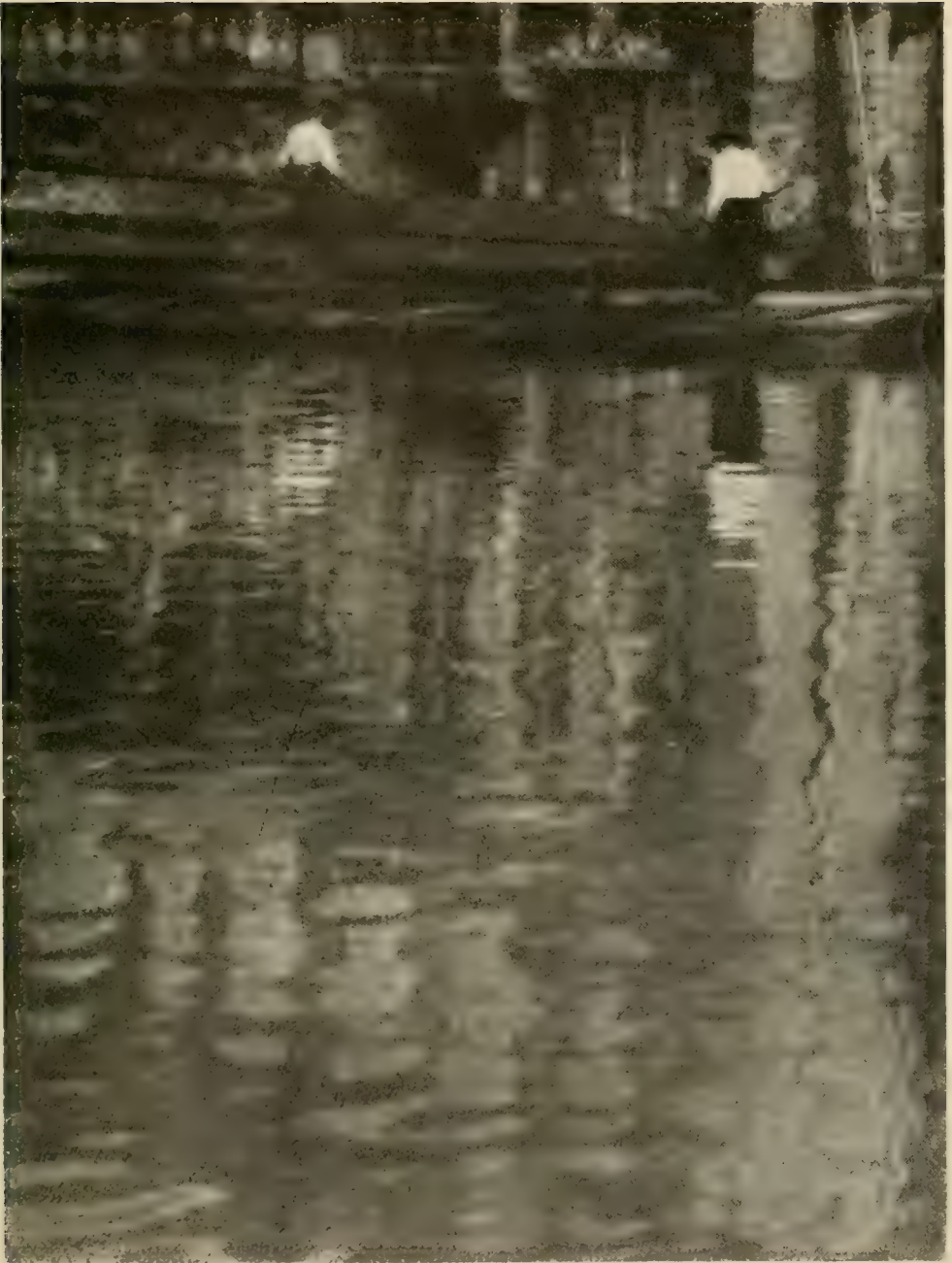
\$10.00 PRIZES

- "In the Woods"—*Amy Whittemore, Hollywood, Cal.*
- "Innocence"—*Charles Bowen, Seattle, Wash.*
- "Still Water"—*Koji Hoshii, Seattle, Wash.*
- "A Porlock Cottage"—*Antoinette B. Hervey, New York City.*
- "Industry"—*Charles Bowen, Seattle, Wash.*

\$5.00 PRIZES

- "Life and Death"—*Ella E. McBride, Seattle, Wash.*
- "The Shrine of Knowledge"—*C. M. Harris, San Francisco, Cal.*
- "A January Shower"—*Wm. D. Rawling, San Francisco, Cal.*
- "On the Terrace"—*Amy Whittemore, Hollywood, Cal.*
- "Post-office at Cropthorne, Worcestershire, Eng."—*Percy L. A. Lines, Seattle, Wash.*
- "Interested"—*Wm. D. Rawling, San Francisco, Cal.*
- "Plodding Home"—*J. Vanderpant, New Westminster, B. C.*
- "The Sculptors"—*Laura Adams Armer, Berkeley, Cal.*
- "Mother and Child"—*Laura Adams Armer, Berkeley, Cal.*
- "An Old Model"—*T. W. Kilmer, New York City.*

PICTORIAL PHOTOGRAPHY—SEATTLE



ON THE CANAL, BRUGES
Third Prize
(Seattle Salon, 1922)
By L. A. GOETZ
Berkeley, California



Howling the Critic Down

By Sigismund Blumann

San Francisco, California



In the previous month's issue of Camera Craft, my dear friend Doctor Percy Neymann had a very exciting letter put before the reader in which he said all that was on his chest and a lot more that he had heard from others who had more than a chestful. To this letter Mr. Felloes aptly and properly replied. What passed between the two gentlemen should close the entire matter, but a controversy is rarely started and finished by the original contestants. A ruction is never complete without a free-for-all and I want to be in this. To you afar it may seem improper and unwarranted but the wide, full brush of my friend, dipped in red has slopped some of its lurid pigment on me, too, and here I am.

The first and salient feature is that the good Doctor doesn't really mind so much that a slovenly kitchen sink received the second prize. None of the protestors really care who gets second prize but each is sore at not having gotten the first award for himself. This is hard on the Doctor, but he will have to confess that had he gotten the first he should not have been impelled to voice his animadversions. It would have mollified, if not disarmed him.

Now, let no one think that the Doctor is disgruntled or selfish, consciously. Those who know him are firm in the knowledge of his magnanimity and loveableness. What bothers him is that certain of his prints were accepted in one Salon and refused by the same jury at another. Well, he might get some consolation out of that. It had been worse had those pictures been refused at both. This injury may be said to have been only half bad.

The facts dear reader, the facts. Here are a few: Prints are sometimes condemned at one Salon because they are inferior by comparison with the standard established by the general lot. The same jury at another Salon may pass those previously rejected prints because the number of superior pictures is smaller or a lower standard holds.

Again: Juries are sometimes composed of humane individuals and against the righteousness of unmerciful justice they have been known to accept prints, not often, but now and then, because the contributor shows such earnest purpose, high ambitions, and sensitive temperament. Having done this once for an individual they may feel compunctions about repeating it too soon thereafter for the same persons or even another.

But this is all in the nature of defence and no defence is needed. Salons and kindred exhibitions are exploited wholly for the benefit of the exhibi-

PICTORIAL PHOTOGRAPHY—SEATTLE



LANDSCAPE
Honorable Mention
(Seattle Salon, 1922)
By KARL STRUSS
Hollywood, California

CAMERA CRAFT

ters. They send in their pictures for what distinction they may get from passing the critical judgment of men selected to pick and choose. And for what incentive to more and better pictorial work they may gain from such distinction. If Salons dispensed with juries and every print submitted were hung the pictorialist of ability would be the first to withdraw. His finer work should be submerged in an overwhelming mass of mediocrity. The public educated to pictorial photography at so much cost and pains, time and money should fall away and Salons soon become obsolete.

A jury must therefore be selected and that jury must be composed of human beings. It is an attribute of humanity to be fallable, yet in past times juries have so wonderfully agreed amongst their number and with one another that it would seem tenable to state their judgment is based on laws and principle with which they are familiar. They differ in non-essentials as men will and as pictorialists do. If they did not our good friend the Doctor might be rejected everywhere, every time or accepted, whatever he might choose to send as invariably. Without a desire to be mean just to make an epigram, it might be said that one of the non-essentials of which I think while writing, is the picture awarded or the person receiving the award.

Pictorial photography is bigger than individuals whether they be producers or critics and the real amateur, making things of art and beauty will be less concerned with what is said of his efforts than with the business of doing things better and better, striving always to reach a point nearer perfection. For instance; that "A Kitchen Sink" is or is not worthy of its distinction has nothing to do with the merits of Doctor Neymann's pictures. "A Kitchen Sink" might be a rotten thing and Doctor's prints be rotten, too, or rottener, or it might be a super-work and the Doctor's be still better. The jury has expressed its opinion honestly (though in this case unanimity was a courtesy and not a conviction) as it was appointed to do and that opinion has not the power to make Doctor Neymann or any other better or worse.

There is one thing more that occurs to me at this moment. Many can not see art, or sense, in this same "Kitchen Sink" which has created more stir than it deserves. I can not see where it belongs among pictures. To me it is a record of slovenly housekeeping and an exemplar of splendid technique. It is a stunt and such a stunt as any first class commercial photographer could put over. But at least one artist who lives by his brush has affirmed, that it was the most artistic thing hung on the walls where it appeared. Alas, Mrs. Brigman. How little and piffling must seem the feverish and hasty congratulations of one of the jury telephoned you about breakfast time, when some bottles, a section of a kettle and a bit of plumbing so enthuses an artist. You took first prize but this artist saw less in the massive rocks, the swirling water, the impressive foreground and the lone figure, safe but awe inspiring than in the depiction of some misplaced crockery and clever composition of triangles.

CAMERA CRAFT



"FAGIN"

A Study

By PERCY NEYMANN, Ph.D.

HOWLING THE CRITIC DOWN

Giving free play to my own ideas I think that artist more didactic than artistic. I am reminded of a teacher of English literature in my college days, who when asked what might be the outstanding greatness of "Evangeline" replied, "Where else can you find such compound, such complex, and such compound-complex sentences. And he was in earnest.

But while my emotions tend to such disdain of the "higher conception" a sense of possibilities, a rational respect for the judgment of others prompts me to say to myself that perhaps this artist sees and knows that which I do not see and have not learned. He seems to me, in this instance, to be all wrong, to him in the same connection, I seem very ignorant and obtuse. In the Comprehending Eye of the Creator we both look pretty foolish.

Miss Watkins got second prize and I hope it made her happy. The Doctor got no prize whatever and objects to the "Kitchen Sink." Mr. Felloes anticipating trouble expounds learnedly of triangles and points of interest at the bottom of tea-cups, and apexes at spots that may be fly-specks, sun-flecks or milk bottle stoppers. The public, without any doubts at all—that public that has subsidized jazz in place of music, chromos instead of paintings, leg-shows instead of Shakespere, that public I say has no doubts that it is right, must be right, and can never be anything but right. It scoffs at critics and juries.

And alas! It is this large contingent who will side with Doctor Neymann. They will abet him. They enjoy watching him wield his gentle stick, but they are not to be depended upon as allies.

Should the second prize have gone to him they should have found equal pleasure and should have agreed as fully with some other contributor who might have seen fit to knock the pedestal from under him.

There is a solution to the difficulty and strictly among friends and in the utmost secrecy I divulge it here: Let all future Salons dispense with juries, accept only one thousand prints, and automatically award one thousand first prizes.





"CHRISTMAS COMES BUT ONCE A YEAR"

(Photo by Keedy, Chicago—Negative on Hammer Plate)

Remarks on this Picture

To the novice and casual observer this picture has all the appearance of spontaneity; this is as it should be. The apparently happy-go-lucky group meets the requirements of good composition, and it will interest some if we point out its construction.

This style of composition is based on what is known as the "pyramid." It is easily traced in the following way. The top of the pyramid is located at the bend in the tube leading to the mouthpiece of the saxophone. From this point to the bottom right corner of the picture we can draw an imaginary line which will enclose the essentials of the picture on that boundary. From the same starting point on the saxophone we easily trace the direction of the other side of our pyramid, the arm of the pianist helping us in that direction; and this line in this particular case also passes out near the corner of the picture; the bottom of the picture supplies our base line, and within these three lines our whole picture is composed, and on account of the suggestion of a pyramid that style of composition is known by that name.

There are certain refinements about this group that should be noticed; it enables us to better appreciate a worker's efforts. The backward leaning

CAMERA CRAFT



"BE CAREFUL!"

Photo by Fred Weidman

of the saxophone player is compensated by the attitude of the pianist.. If the pianist had sat upright before the piano, the saxophone player's position would have lacked the support it now has and there would not have been the pleasing composition of these two figures; each would have been isolated, and the photograph would have lost as a picture, though it would be a success as a diagram. This group of three figures is properly handled; it is an arrangement of two and one and not a presentation of three units. Were each unit to "star," there would be no picture, but the photographer by grouping two, accentuates the remaining figure, the drummer, with the result that the whole composition is simplified and the spectator is not confused as to which he should look at first. As this figure is isolated, let us devote a little study to him. We have already explained the reason for the slope of the body, but notice how the drum is balanced in the composition by the back of the chair. Call it a lucky chance if you like, but see how this chair back fills up the hole in the picture that would otherwise have been left by the drummer's upraised arm. By posing the arm in this way, and with the aid of the uplifted drumstick pointed inwards, the eye which travels up the arm is brought back into the picture instead of being permitted to leave the picture.

These little things which are matters of so little moment to the average photographer are well worthy of thought.—E. F.

OUR WILD FLOWERS

Kindly Contributed by Our Readers

XIX.—CALIFORNIA CHRISTMAS BERRY

(El Toyon)

The beauty of this tree or shrub is not at the time of its blossoming. It is around Christmas, when the berries are ripe and of a glorious red; then it attracts the eyes of the wanderer, and to the automobilists its coral clusters seem altogether irresistible, and some gather great branches to decorate the home.

Periodically we hear a howl in the daily press at this vandalism. We are told these trees will some day be gone, and various suggestions are offered, even to the invocation of the law. Why must people be ruthless?

El Toyon is to us what the holly is to those of colder climes. What would Christmas be without its red berries and glossy green leaves?

(Photo by E. S. Bechtold, Sacramento, California)



EL TOYON



Combination Printing

By P. Douglas Anderson

Member of the Pictorial Photographic Society of San Francisco



With Illustration by the Author

Sometimes it pays to keep one's mouth closed, especially so when around the den of Camera Craft, where that genial "go-get-'em" editor, Mr. Felloes, has his ears focused on news for the magazine.

It all happened this way. I mentioned Will H. Walker's article "The Making of a Picture" (published in the June issue), and said I did it a different way from that, and then, like the villain in the play, he exclaimed, "Ha, ha! you write an article on that, young man!" And me a busy man, with a wife and family an' everything. And so, dear reader, if you tire of this scribble, don't blame me, but blame the other fellow.

My picture "Solitude" never seemed complete to me in its original state; the background always appeared weak. Printing in clouds did not appeal to me, and in looking through my prints I came across one of Mt. Tamalpais, and the thought struck me that here was the solution of the problem. Its shape would fill the background or distance just right, but the view I had was not made under suitable lighting conditions, and in consequence didn't harmonize with my picture. This naturally meant another trip to Marin County, to photograph Tamalpais when the lighting conditions were right.

I now had my two negatives—the foreground one with my wife, made among the hills at Sausalito, and the view of Tamalpais made from Greenbrae. Now for the printing.

The foreground negative was placed in a printing frame, a piece of solio (printing-out paper) put in contact, and then printed by daylight, shading the sky part just a little. When the foreground was printed to the right shade, the negatives were changed; the proof was placed in right position over the Tamalpais negative, and the distance printed in, shading the foreground with a piece of paper cut roughly to fit it. The first attempt at combining the two negatives in the one print was successful and I was ready for the copying.

The print was left untuned and copied at night in the kitchen by using magnesium ribbon to light the copy. I made two cardboard reflectors, with a piece of wire bent into a hook, and attached to the top of each reflector I suspended the ribbon and then placed a reflector on either side of the print. The actual focusing of the print was done by electric light. A sufficient length of ribbon (in my case about two and a half inches in length) was

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"SOLITUDE"

London Salon, 1922

hooked in each reflector. When all was ready for the exposure one of the ribbons was lighted and when this was burned out I lit the second one; this completed the exposure, and I went to my dark room to develop.

The copy negative proved to be successful, and my exhibition picture at the London Salon of this year was a straight enlargement from this combination negative.

Just a few words on the making of the original negatives. I used a 4 x 5 Sanderson camera, fitted with a nine-inch Verito lens. The negatives were made on Eastman portrait film, developed with pyro. The copy negative was made with the same camera fitted with a seven-inch Aldis anastigmat lens on Eastman Commercial Ortho Film tray developed with Burroughs and Wellcome Rytol.

And now, dear reader, you have the whole story. I imagine I hear some of you saying, "What a lot of work to get one picture!" But remember, one's picture is not judged by the amount of work expended upon it; it is the result that counts. Also, making the picture afforded my wife and I happy hours in Marin County, giving our bodies the best of exercise and filling our lungs with air that is only to be found in the big outdoors.



Silhouette Photography

By Willy Block, Photofreund, Berlin
Translation by Percy Neymann, Ph. D.



Modern Photography presents a long and varied series of technical methods employed, by which many fine things have been accomplished. Owing to heavy expenditures and the requisite time however these can be taken advantage of by a limited number of amateurs only. It is therefore, remarkable that a field of interesting work entailing only the simplest requirements has apparently been passed by, although the elementary stages have long been conquered. We refer to black and white art as applied to portraiture, chiefly of individuals.

Of late this art is finding many advocates although the heyday of silhouette photography dates back to the beginning of the 18th century. Silhouette portraits were made long before that time, special apparatus for this class of work having been employed. However that procedure had no connection with the cut-out method.

The following is intended for those interested in black and white art and to give data by which the most simple accessories may be utilized for the production of silhouettes.

To begin with, the negative should be made as hard as possible. It is best to select plates (or films) of slow emulsions as these develop stronger and with a heavier deposit of silver. Non-halation plates are well adapted, but by no means essential. The developer can be Metolhydrochinon, or better even, Adurol, with careful addition of Potassium Bromide.

The exposure had best be made in a room with one window. In front of the open window (to avoid interference by crossbars of the sash) fasten a white cloth with thumb tacks, thus producing an evenly lighted white background. In front of the background place the subject to be photographed. The distance between subject and lens should be about seven or eight feet, depending upon the size of negative wanted and the focal length of the lens, which should be nine or ten inches. Lenses of shorter length are inclined to produce the wrong perspective and those of longer focal length require longer rooms than are ordinarily available. With sufficient light, using a stop of about 6.8 the exposure should be from a half to one second.

By using a hard or extra gaslight paper a fairly good black and white contact print can be obtained. But the silhouette will not be sharply enough outlined and some parts of the print, as for example the hair will be readily discernible. It is therefore better to resort to reprinting, but not from the original negative. In that event it is not required to make a prolonged exposure from the original negative.

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A cut-out of the gas-light paper print is now made, care being taken to have the cut-out below the neck harmonize with the form of the head. This cut-out is then placed in a printing frame with a piece of hard gas-light or other paper suitable for use as a negative and the exposure and development made in the usual manner. We then have a negative, the head in white and the background in black. This procedure, aside from eliminating undesired details has the additional advantage of producing increased contrasts. Grays disappear and such retouching, as possibly the collar in the case of the silhouette of a man, or providing a border, can then be done. All retouching of the face or its lines is to be avoided. The printing from the paper negative requires perhaps twenty or more times that from a plate or film, dependent upon the paper used.

As a developer for gas light papers, Adurol is probably best because of the intensely black tone it produces. Any strong developer will do, but care is necessary with the use of potassium bromide, because of the danger in producing unpleasant brown tones.

Where a large background is available, silhouettes of full figures or small groups can readily be made. It is not difficult to make silhouettes of characteristic buildings or groups of these, of monuments and objects photographed against the light. These, however, should be made in the early morning or late evening.

We wish to refer to other black and white work which does not require a plate or film. This is contact printing of leaves, buds, flowers, etc. Leaves of characteristic contour or form can be printed direct in a frame. Place the glass in the frame, then the leaf and upon this the paper, lock the frame and print. In this way the outlines only or, with prolonged printing, also the veins and structure of the leaf can be shown. This method presents a great variety of opportunities and variations, the main advantage being the low cost, as neither plates or films are used.



A Collapsible and Home Made Dark Room

By Onlooker



With Illustration by the Designer

The newest thing in the way of "photographic dark rooms" is that designed by Chauncey McGovern, the well-known handwriting expert and photographic illustrator of documents in dispute, now in use in his Hearst building studio in San Francisco.

The features of the newly installed dark room are: (1) It is collapsible—can be taken apart in 30 seconds; (2) it is as light as the proverbial feather. Being made of composition board, with redwood edges, one man can take it apart and lift it from its regular position in a sun-lit office, place it in an automobile, and set it up unaided in a courtroom anywhere, or in the woods. Also it "cheats the greedy landlord," inasmuch as it is readily moved by a tenant who has to vacate through "increase in his rent." (3) It is cheaper, the materials costing little or nothing; any ordinary person with a hammer and saw could make a duplicate; (4) It is unpainted, either inside or out, although Expert McGovern uses it almost exclusively for developing panchromatic process plates of 11 x 14 size; and (5) it is well ventilated without a fan, there being a double-hooded intake at the bottom, with a triple hooded outlet at the top. The sides and top are merely "hook and eyed" together. The electricity cord enters through the ventilator, and strips of carpeting around the bottom inside of each wall keep out all light, even when the floor or ground or whatever the folding dark room is placed on temporarily, is at all uneven.

The size of the collapsible dark room can be regulated to suit the needs of the user. That of Mr. McGovern's is four feet wide, seven feet long, and eight feet high. This to allow standing room during development for three persons; for the expert always has a photographic assistant present during each development, as a "legal witness" that the plates are in no wise "faked," besides which he will never make a negative unless there is also present a representative of the court, or an attorney representing the owner of the document being photographed. The large size of McGovern's dark room also permits of thorough ventilation, a desirable quality when we realize that with panchromatic process plates, with a "B" screen, such as the expert uses frequently when making negatives of questioned type-writing done with violet ribbons, the time required for development consumes quite a large portion of a full hour. The McGovern dark room is

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(Photo R. J. Waters and Co.)
IT IS A PERFECT SUCCESS

fitted also with two "collapsible tables," plain boards held at table height by only hooks and eyes, and with four spacious shelves, also removable, for chemicals, extra plateholders and other paraphernalia kept handy for special treatment of plates during development.

The water supply is controlled by two rubber hose pipes connected with the office wash-basin for convenience.

That the folding dark room is a positive practicality is proven by the fact that Mr. McGovern does nothing but highly scientific negatives and prints, most of them "photomicrographic" or made with a combination of 11 x 14 camera and microscopes.

Lots of men are wishing for a little leisure time to turn out good work. We notice that the best work comes from fellows who haven't a minute to spare.



Sale and Exchange of Photographic Equipment

By W. B. Harsel
Cuyahoga Falls, Ohio



The writer as well as all camera exchanges receives letters of complaint, some very decided ones, written under the impression that we, the dealers, are trying to secure the customers' lenses or cameras for practically nothing. I consider it, therefore, only a fair proposition to enlighten readers on the basis of such exchange as practiced by dealers in general.

In the first place the public should appreciate the fact that the overhead expense is considerable, in rent, help and general advertising both in magazines and bargain lists. Also, that only the regular dealers in photo materials, etc., are allowed a discount on cameras and lenses the customer purchasing at current list price. As a further illustration of the basis of exchange I will relate an experience of my own, of recent date.

A certain correspondent in Columbus, wrote in that he had a fine lens of a particular standard. The lens was just as good as new and cost \$130.00. It was eight months old and used very little. My correspondent desired a lens of shorter focus and named his choice, at the same time desiring to be informed as to the amount I was willing to allow on his \$130.00 objective.

Without question, no dealer will allow a higher price than he can purchase that particular lens for when new. No matter what its condition it can not be sold as new; due to this fact 60 percent of its list price is all that the lens will be valued at on the exchange basis, for there are other conditions that must be considered, for instance: The quality of the lens, is it advertised extensively, and is it a good seller, etc., etc.?

In the case of the lens offered as above that cost \$130.00, it was of imported German make. The quotation on this lens from makers brought the price down to less than half new, say \$58.00 allowing for its general use, say \$10.00, our allowance on this lens was \$48.00 in actual figures to be credited to the purchase of the new lens listing at \$80.00 making a cash difference in our favor of \$32.00.

The proposition just as stated was put up to the customer and the letter the writer received was of such a nature as to be unprintable. In other words we were just like all the rest, robbers, crooks, etc. Usually no attention would have been given such a letter, but the writer was tempted to explain the basis of exchange with the result that I sold the customer the new lens, and received a letter of apology. My letter reaching him first in reply, I naturally met his explosion of wrath.

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The only remedy for the condition of exchange is to sell your lens or camera to a private party at a fair discount, this will help your customer in that he or she will purchase it for less than when new. You will then pick out your own lens and have more money, or less to add to it when buying. Another way is, look over the ads, or advertise in Camera Craft, and perhaps you can purchase your choice for considerably less. At any rate do not "fly off the handle" when your dealer makes you a fair offer even though you think he is driving a sharp bargain.

Lastly, always ship your lens with your offer, this saves time and trouble, you will have to do it anyway and you may receive a better allowance after the condition is noted than before. Some customers' idea of "a lens like new" is very crude.



"BOBBIE"

Photo by Mrs. Rowland C. Robertson

The Fisherman

A boy, a stream, a willow rod,
Sun shining thru the branching trees,
Trout playing in a glist'ning dance,
Young Bobbie wading to his knees.



Quite patiently he stands and long,
Breathlessly waiting for a bite,
Thinks something surely must be wrong,
Or they would nibble just a mite.



"My daddy made my trusty rod,
My bait's the fattest garden snail;
Can you see any reason why
This fishing venture has to fail?"

FLORENCE PRESLEY.

No Compliment

"Did you tell that man who was around photographing for the newspaper that you didn't want your picture taken?"

"Yes," answered the eminent but uncomely personage.

"Did he take offence?"

"No. He said he didn't blame me."—New York American.

The Old Kitchen Sink

With apologies to Margaret Watkins

The old kitchen sink has at last been proclaimed
A pictorial subject of note and so named
By a jury of judges of well-known repute—
Though most housewives may justly their verdict dispute,
As they only consider the clash and the clink
Of the dishes they've washed in—

The
Old
Kitchen
Sink.

To us fellows who photo—the old sink for years
Has been cherished as now it so brightly appears;
For who is there who has not his birthright begot
To make pictures of note—at this very same spot?
And full many a gem at which judges still blink
Has been made by the aid of—

The
Old
Kitchen
Sink.

We've developed and printed beneath its brass taps;
We have oft' met success and as oft' met mishaps
As the water splashed down, but the prints we have shown
Are more truly the work of the sink than our own;
So we say to the judges, "We think as you think,"
In awarding a prize to—

The
Old
Kitchen
Sink.

WILLIAM LUDLUM.



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A PHOTOGRAPHIC MONTHLY

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A Merry Christmas and a Happy New Year!

The Pictorial Quality

We have often wondered whether the average photographer really appreciates the possibilities of "pictorial" photography, or whether he has an understanding of the meaning and value of the pictorial quality. There exists a popular idea that the pictorial photograph is something made for exhibition in photographic salons, and this is the end of it. We wish to correct this erroneous impression. The pictorial quality goes much further than that and is of the greatest importance

Of recent years—quite recent, we might say—there has been a steady movement in favor of the pictorial, and this has undoubtedly raised the standard of photographic work. Photography has long played an important part in the advertising field, but anyone interested in the study of this subject—and every commercial photographer is vitally interested—must have noticed the irresistible trend to this pictorial quality in the advertising picture.

Let us consider the advertising picture of today and of "yesterday." There was a baldness in yesterdays' work which is growing rarer today. There are two ways of advertising an article by picture. The older way is by a representation of the article itself, and let it go at that. The newer way is to show that article, and to suggest the uses to which it may be put. Here the pictorial element is introduced. The one picture appeals to the imagination and is more likely to be remembered because it is interesting; the other, failing to interest, is quickly forgotten.

Here is a case in point; it is a true story: A certain merchant in a large way of business wished ten photographs "for copy" illustrative of a certain specialty. He could have secured the services of a skilled photographer, who would have given him technically perfect photographs "on the old lines" at \$10.00 for each negative, including one print. Some readers will think this quite a price—but listen! This merchant went to another photographer and agreed on a higher price for these negatives; but, mind you, not done in the same way. The point we wish to make clear is this: The advertiser knew the cost of the photographic materials to the two photographers would be practically the same; what, then, was he paying for? The answer is simple—IT WAS THE PICTORIAL QUALITY, and the actual amount of the bill totaled \$1375.00.—E. F.



Address by William B. Moyle

Before the Photographers' Association of California, at the Dinner at the Stewart Hotel,
Monday Night, November 13th, 1922

The Chairman: I want to extend you greetings and well-wishes for this occasion. Photographers are not good business men, and on our programme we have had that in mind, and so we have invited tonight one of the representatives of our big brother, the Automobile Association, to address us tonight. We expect to get something out of this which may touch the keynote of what we intend to do with the Association in the coming years; that is, to get on a better business basis and better association. Our automobile people know that others besides themselves must make money in order to be able to buy their automobiles, hence this co-operative meeting in a sense; and I want to take this opportunity to introduce to you Mr. William B. Moyle, of the Chester N. Weaver Company.

Mr. William B. Moyle: Mr. Chairman, Ladies and Gentlemen of the Photographers' Association: First, I want to congratulate you upon having the good sense to have an organization. Nothing in business in the United States today can be done successfully without organization. As your chairman has said, in the automobile industry, the second greatest industry in the world—I think bootlegging is the first (laughter)—we have learned the value of organization. Just as a casual observer, one looking from the outside into the photographic profession in San Francisco at least, I have always felt that it was a pity that the photographers of San Francisco anyway did not have enough sense to organize and get together and be friendly. I do not know of any profession, I do not know of any profession in the world where the "green-eyed monster" of jealousy has forced its way in more than in the business of taking pictures. That may sound rather a harsh criticism of your profession in San Fran-

cisco, but I say it after buying a great many pictures. We have been buying them for quite a long time, and I say that after just personal observation nothing is more destructive than for two men who are engaged in the same business to knock the other fellows' game. In the automobile business any salesman who tells a prospect that another automobile is not a good automobile is immediately fired. There is an agreement in force at the present time to that effect, for this reason: When you knock an automobile you are knocking automobiles in general, putting a destructive thought in the mind of the buyer.

Now, ladies and gentlemen, there was a misunderstanding in the announcement of my talk to you tonight. If you think you are going to hear a very clever talk on salesmanship and business efficiency, you will be disappointed. I am not going to talk on business efficiency but on personal efficiency, and the basis of my talk is this, that eighty per cent of the unhappiness in the world is caused by men and women being in the wrong vocation. Too many men have gone into the pulpit who should have been following the plow, and quite a few men who are following the plow ought to be in the pulpit. If you want a talk on salesmanship, I can give you one in two minutes. I claim to be the greatest writer on salesmanship in the world. I have put it into one paragraph. Listen, and you will have all there is worth knowing about salesmanship. It is this one sentence: "Know your proposition; have faith in it; light the fires of your enthusiasm, and go to work." That is the finest book that has ever been written on salesmanship. But the all-important thing is faith, FAITH! If you have not got faith in your business, sell your-

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self faith in it. Just as when you get up in the morning the first thing to do is to sell yourself sunshine. You can sell yourself anything that you want to, if you are willing to be sold. And, if you do not think your business of selling pictures is the finest business in the world, if you do not think this, then you are robbing some fellow who ought to be taking pictures. Faith is the foundation of success in selling merchandise and in selling yourself salesmanship; it is not confined to selling pictures or to selling brick and mortar. Salesmanship is used in everything that sells itself to society. The lawyer sells the guilt or innocence of his client; the minister sells his particular brand of religion. For me to think of coming here tonight to tell you how to sell pictures would be an insult. It is impossible to apply the principles of salesmanship adapted to a certain business to the methods of another, outside of the great general principle given you in that famous book of mine. Faith is the dynamic something that can put anything over. If you believe that the Photographers' Association can double your business, if you believe that it will—I am not a Christian Scientist; I am just a practical psychologist—it most certainly will. I learned my lesson in the hard school of business. Let me give you—you are used to pictures—I am going to give you a few word pictures. One is a picture of faith.

In 1906 I had the pleasure of seeing one of the greatest demonstrations of faith that, so far as I know, has been recorded. I was standing in Trafalgar Square in London a few weeks after the Rev. Dr. Campbell, of the City Temple, London, had made his announcement of a new theology over night. He had turned down all the basic supports of the orthodox Christian old men and old women whose lives had been made beautiful and happy because of their faith in certain basic doctrines of their religion. On this particular night the master band of the entire Salvation Army of Greater London were gathered there, and I can remember the tune they were singing and the words they were using just as though it happened yesterday. The fulcrum of Dr. Camp-

bell's new theology was this: "That Christ was a myth, that He never happened, and certainly He had never been crucified, and He would never come back to earth." The great congregations of Methodists of Great Britain believed that he would; it was part of their religion; they believe it; and the Salvation Army this night were singing: "We Shall Know Him, We Shall Know Him, by the Prints of the Nails in His Hands." Gentlemen, that is faith; that is the kind of faith that moves mountains; it is the kind of faith that makes good men out of bad; it is the kind of faith that can do anything on earth.

A little Scotch boy was carrying food to a Scottish minister in hiding, away up in the Scottish Highlands, hiding from the soldiers of the Crown. He was caught one day by a British officer, and the British officer said to him: "Come on, boy, tell us where the minister is in hiding." At that time ministers of the Scottish Church were being persecuted, shot like mad dogs, and this boy had been carrying food to him in his retreat. "If you do not tell us, we will throw you down there." They were standing on the edge of a cliff many hundred feet high, with nothing but rocks beneath. The little chap looked down and then looked up in the face of the British officer: "It's deep, but it's no as deep as hell," said he.

The great thing we lack in 1922 is faith in ourselves and faith in life. I come to you tonight with a new ism; it is a new kind of I.W.W.-ism. I remember that Stewart Edward White told me when we were in San Diego together, and I was going over to that exclusive little island of Coronado. "Moyle," said he, "you don't want to go over there." I had just been making a series of talks. "You'll find the greatest radicalism of the times; that place is full of I.W.Ws." "I don't care," I said, "there are no such things in that fashionable place." "Oh," he said, "the place is just full of them, independent wild women." I have an ism that if you don't leave the profession of photography I shall have missed a good bet; I will have felt that my talk was absolutely in vain if some of you do not think that photography is not your particular profession.

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If I were a preacher, and were to take a text, I would paraphrase the well-known line of scripture tonight, and use it in this way: "Seek ye first the right job, and all these things shall be added unto you, money, success, happiness, everything."

At least, ladies and gentlemen, at least eighty per cent of the unhappiness of the world is caused by no other reason than that people are in the wrong vocation, doing the wrong things. Go out on a great plain, a vast desert, and show me there a beautiful cathedral, with wonderful architecture, wonderful mosaics, beautiful windows, and then tell me that that cathedral was built for absolutely no purpose whatever. How can I believe you? Get that picture of that beautiful cathedral out there in the middle of the desert. Consider the average, just the average, human being with all his wonderful attributes of sight, touch, smell, taste and hearing, let alone a sixth sense, the very soul of man, and then compare this average human being with the most beautiful building that was ever constructed, the most stately vessel that was ever launched, the mightiest machine that was ever wrought, or work of art that was ever designed. These things in comparison to the human being are just like the candles of yesterday. The human being is like the stars that shine tonight, that will be shining just as brightly a thousand years hence. Is not there a place where you fit in in the universe? In the great building of the universe is a place where each one of us more or less exactly fits. Do you ask, "How shall I find that place?" I will tell you. It is the thing which you like. Tell me the thing which you like, and I will show you the thing at which you cannot fail. Have you ever listened to a great actor, looked at a great painting, read a great book, listened to a great sermon, looked at the work of a great artist? And have you not felt that something in you has said, Oh, how you would like to be that or do that. Why, my friends, that is the great artist in you, the great orator, the great preacher, the great writer, the great salesman, the great photographer in you crying out for expression. And, when you find that one

thing that you want to do, all your problems are settled. "Seek ye first the right job and all these things shall be added unto you, money, success, happiness, everything that you want in life."

I had the good fortune quite a number of years ago to hear Dr. John Fox, the father of John Fox, Jr., the author of those wonderful stories of southern life. I was sent to hear his sermon on a political subject as a newspaper man in the city of Trenton, New Jersey. A very beautiful girl sang at Dr. Fox's service that morning. She sang beautifully so far as her technique was concerned. I had occasion to go into the vestry after the service to ask Dr. Fox a few questions for my paper. The mother of the girl was there, and she was asking Dr. Fox, "But, Dr. Fox, do you think we ought to sacrifice all our savings to send her to Europe so that she can become a great prima donna?" Dr. Fox looked at her and said, "She is all right, she sings very well, but I would not do that." "But, Doctor," she said, "give us a real expression of what you really feel and think." He said: "I will tell you. If I were a young man, good looking, a regular Adonis, I would court her, make love to her, marry her, mistreat her, break her heart; then she would sing."

Once, as a newspaper man, I was sent to a banquet in honor of a great writer in Wilkesbarre, Thomas Lever. He had a big history. He had driven a city water-cart for twenty-five years; he had brought up a family of five children; he had always been a great student; and one morning, as he was driving the water-cart down the street, he met the owner of the Wilkesbarre Times Leader. He just happened to remember—this was around the time of the death of William Ewart Gladstone, the great British statesman—that this man was well informed, so he asked him if he knew anything about Gladstone. "Yes, indeed I do," he replied, "my father was a bailiff on his estate." So he asked him to come into the office and write an editorial on Gladstone, and he did, and it was a marvellous piece of writing. He was offered a job as leader-writer on the Wilkesbarre Times Leader. And there, a

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few years later, we were honoring him for the work he had done. Thousands of people all over the country took the "Leader" to read these editorials. At the banquet, with the tears streaming down his face, he said: "I have a message for you young fellows. Just think what might have been if I had become an editorial writer twenty-five years ago; think what I could have done for my family, my boys, my girls!" It may be that twenty-five years of life on eighteen dollars a week, with a family of six or seven children, had taught him something about writing that no university in the world could teach him. That is quite true. But do you want to have the experience of that man? No, of course you don't.

Now, ladies and gentlemen, I have brought you thus far for only one purpose. If you gentlemen are employers of labor, if you employ assistants—and this is the first step in successful organization—get the right man in the right place. Business in America today is just full of men and women who don't belong. And I assume that the business of photography, or the profession of photography, whichever you please, is just as full of misfits as any other. And that leads me to this thought, that if you are ever to make a success of organization, if ever you are to make a success of organization in your business, you must keep every man in your profession, every woman in your profession, as efficient as any other man in your profession; and I do not know anything that will do that more than an organization like this. I do not know of a single thing that can possibly help you more in getting efficiency generally in your business than a Photographers' Association.

There is just one practical suggestion outside of that that I have to offer, and it is this: That the Photographers' Association would be very wise in considering community advertising in relation to the selling of photographs. Let me illustrate what I mean. If you photographers of California would each throw in one dollar into a fund for the purpose of plastering all over the State of California an expression like this: "Say it with pictures" or

"A picture tells the story," as the florists have done, "Say it with flowers," I would be willing to gamble, providing you made a good, steady campaign, that you would increase the demand for photographs of every description one hundred per cent inside of twelve months. For me to take up your time with the history of other community advertising would only be to waste it. The raisin growers of California recently started a campaign to sell the raisin. From what the orange growers have done to what has been done in the automobile business is why they are as big as they are today. I could make you drunk with enthusiasm if I began to tell you one-half of the success of community advertising, and, so far as I know, there are mighty few professions or business groups that are not now using community advertising in some form or other. Get on to the band wagon; it will mean money to you; and when you have money in a business you can do anything. If you have money, you can have efficiency; when you have money to pay capable assistants, you can demand the very best. Why, do you think that, in the automobile business, we would be making as much money and selling as many automobiles as we are, if we were selling the old cans that were rolling around here in 1909. I have photographs handed me by alleged professional photographers not much better than the tin-types that my grandfather used to get. These may be harsh criticisms; they may be unfair; but it is all I have to go on, what I have to see in my own personal experience. Why, advertising men have not begun to use pictures in advertising copy, really good photographs in advertising. Why, ladies and gentlemen, if you would just begin to stir up an atmosphere, you would all be rich men in ten years, if you would only get one mille of the business that there is to be had if it is gone after right among advertisers. It is true that photographs are used to a tremendous extent, but as compared with what it might be you have simply not begun to start in on it.

It would pay you photographers to have a capable secretary-manager of your Association, who did nothing else but look

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after your interests at propaganda for the sale of photographs of every description. Of all the business men I know, photographers are the poorest. And there is a reason for that, ladies and gentlemen, a reason for that. And this is the reason: that you cannot be a successful photographer, an artist, and be a money-grubber. There is another idea for you.

Let every artistic photographer have a person who knows how to get money, how to sell the pictures.

Gentlemen, I could talk to you all night. If I have said anything that sounded like pessimism, forgive me. I did not mean it. There is no one who has more faith in human nature and the future of American business and in America socially and morally and spiritually than I have. Particularly since the war, there has been a new note in all the noise we hear. I say "noise" advisedly, because we are hearing a lot of noise from all over the country; we are obsessed with all kinds of isms; the country is having a fit of convulsions on isms. But there is no need to fear. The American is a wonderful fellow, and I say that without any particular egotism. He is a wonderful product. He has the loyalty of the British and the wit of the Irish, the thrift of the Scot and the romance of the Italian, the vivacity of the French and the scientific brain of the German, the stick-ativeness of the Scandinavian, and a little of the avarice of the

Israelite. And out of the melting pot has come a wonderful product. The American has scarcely begun to do things; he is just beginning to do big things and to think of more than money; he is beginning to catch the heroic, divine enthusiasm of altruism, and he is not only thinking about making money. A fine thing about life is this, that if you do the right thing all these other things will be added unto you.

If you will organize as photographers and get a good, strong, stout organization, there is nothing that you cannot do. You will never need to worry about a new camera, new clothes or a hat, if you will just get together and use the grey matter that the good Lord has given you. Never worry, because when you are doing the right work and doing the right work right, it is a natural law that everything else will come to you without any more effort on your part.

I could talk to you much longer, I have not said all I wanted to say; but I think, ladies and gentlemen, that I have said enough. Thank you! (Applause, long continued.)

Chairman: Mr. Moyle, on behalf of the photographers present, I must thank you for this most delightful and illuminating talk. It comes from one who knows big business and who knows what he is talking about.



A PHOTOGRAPHIC DIGEST

Edited by H. D'Arcy Power, M. D.

Acid Amidol for the Busy Printer

The respective merits of amidol and M. Q. have often been discussed in these columns, but there is no getting away from the fact that amidol is extremely popular with the trade printer. The fact of it being a neutral solution (or practically so) makes it suitable for the water of some districts in preventing the formation of insoluble compounds, which give the prints a gritty surface. It is very simple to make up, and has considerable covering power.

The chief disadvantage of amidol is that it does not keep in solution. Three days is considered to be its effective life, but I have found that with both neutral and acid amidol the covering power is very feeble after two days. However, this is not such a formidable disadvantage when one can keep a stock solution of sodium sulphite and add dry amidol as required just before using. After the continuous use for some months of an acid amidol developer for many thousands of prints and enlargements on bromide and contact prints on gaslight papers, I find it excellent, clean-working, constant, and what might be called a "business proposition." I do not notice any improvement in the keeping properties of acid amidol, but it is quite regular in use, due I think, to the acid sulphite solution being constant and not so liable to deteriorate as a plain solution. The image builds up in the usual way, and development of bromides is complete in two minutes with $\frac{1}{4}$ grain of potass bromide to the ounce of developer. Some makes reach finality in $1\frac{1}{2}$ minutes. Gaslight prints develop in one minute, or sometimes less with the vigorous papers. Well diluted, it gives excellent colors on the slow development papers.

The formula given below is suitable for practically all the development papers.

The acid sulphite solution is made up in a four-gallon jar with a wooden tap fitted for drawing off the required amount. This jar is placed on a strong shelf at a convenient height, and a small hanging jar is kept under the tap in case of slight leakage.

Stock Acid Sulphite Solution

- A. Sodium sulphite (cryst.).....8 lbs.
Water (hot) about...3 gals. (480 ozs.)
- B. Potass. metabisulphite.....2½ ozs.
Hot water.....½ gal. (80 ozs.)

When cool, mix slowly adding the metabisulphite (B) solution to the sulphite (A) solution, and make up to 4 gallons with water. To make a working bath, use the following proportions:—

Working Bath

- Acid sulphite solution.....40 ozs.
- Water40 ozs.
- Amidol (dry)200 grs.
- Potass bromide(See below)

The potass bromide plays such an important part in affecting the color of the image, time of development, and prevention of fog that special care must be taken to ensure accuracy. This salt should be made up in a 10 per cent solution, and always accurately measured out, bearing in mind that the average amount required for bromides is $\frac{1}{4}$ to $\frac{1}{2}$ grain to the ounce of developer. In a 10 per cent solution every dram contains six grains, every 10 minims contains one grain, and every minim (or drop) contains 1-10 grain.

Bromides and gaslights develop to a nice black color with $\frac{1}{4}$ grain of potass bromide to the ounce of developer, and to obtain a warm or olive black on gaslight, chloro-bromide, or studio development papers it is necessary to add more (up to 6 grains to the oz.), and also to dilute the developer. It is interesting to note that in diluting the developer for gaslight papers the contrast with the vigorous

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grade is increased, but quite the reverse happens when using a diluted developer for bromides. Potass bromide has little or no influence upon the contrast given by any particular paper, but it is in practice absolutely necessary to prevent fog and to control the color of the image. Absence

of bromide will give quite a blue color on gaslight, but the whites will often be degraded.

The following table may be useful for reference when a particular color is desired:

<i>Process</i>	<i>Grade</i>	<i>Exposure.</i>	<i>Potass. Brom., grains per oz.</i>	<i>Color.</i>
Gaslight	Vigorous normal.	Correct.	$\frac{1}{4}$ gr.	Pure Black.
"	Soft.	Double normal.	1 "	Olive black.
"	"	4 times normal.	4 "	Brown black.
Bromide	All	Correct	$\frac{1}{4}$ "	Pure black.
"	"	Normal, plus $\frac{1}{8}$	1 "	Greenish black.

The latter color is produced on bromides that are to be toned in the hypo-alum bath. The development is stopped short of finality, so as to ensure a warm sepia tone in this toning bath. Bromides developed to finality give a rather cold tone in hypo-alum.

Fixing Bath

Hypo	18 lbs.
Hot water	34 quarts
When cool add the following solution:	
Potass metabisulphite.....	5 ozs.
Hot water	2 quarts

It is convenient to make up a large fixing-bath for a busy man. The formula is as given above. I am lucky enough to have a large white earthenware sink holding 40 quarts easily, and this is fitted with a pull-out plug. There is also a steam pipe fitted under the sink for use in winter or on cold days.—B. R. Rawkins, B. J. of Photography.

Note: This differs from my formula in having much less acid, hence its lower keeping qualities, but low acid content has the advantage of more rapid development.
H. D'A. P.



ART AND THE CRAFTS

A Department Devoted to the Encouragement of a Closer Relationship
Between Photography and the Fine Arts.

Foreground Water

We have dealt with the foreground, or foreplane as it should be called, as ground and as sky, and now it is to be considered as water. Not as water constituting a picture, but as water incidental to other elements concerned in the landscape. In this sense water is not commonly a foreground problem. Water so used has some advantages and many difficulties. Unless it reflects the light of the sky it is apt to be a dark structureless mass without any picture building possibilities, if it does reflect the sky and the latter is not hopelessly over-cast, it will dominate the picture by reason of its force, by its brilliance which always seems to exceed that of the sky itself. It has been in dispute as to whether the light reflected from water can be brighter than its source. So stated the answer must necessarily be no, but the light reaching the eye from a given patch of water is often light striking the water at an angle from a patch of sky brighter than that included in the picture. Furthermore, lighted water in the foreground is

usually surrounded by dark masses that are absent from the vicinity of the sky, and in accordance with well-known principles the former appears the brighter. This effect may be well observed in the street canal scene in Freiburg, in which if two holes be cut in a piece of black paper and superimposed over water and sky it will be seen that they have the same value. Be the result real or only apparent the final result is that such water dominates and gives the key to the picture.

The trouble with water as a foreground is its tendency to sharp definition and uncompromising outlines, and very often its lack of gradation or break of surface. Of late years there has been much painting of water pools in the desert and as examples of design most of them have been failures; this is hardly excusable in the painter who has the power and the right to rearrange within natural limits. A few photographic examples are here given that show how these natural disabilities may be overcome, especially in a medium allowing of greater control. H. D'ARCY POWER.



NOTES AND COMMENT

A Department Devoted to the Interests of our Advertisers and Friends
In it will be found much that is new and of Interest

While the notices under this heading are strictly in the nature of information and news for the benefit of the reader, and are neither paid for nor actuated by our advertisers, we are compelled by the Postal Laws to mark them as follows—Advertisement.

Reported by Wm. Wolff

Geo. Schneider, of Logan Studio, Stockton, is soon to be married.

Mr. De Remo, of the Picture Shop, Stockton, has joined the Benedicts Club. Best wishes.

Nathan Reiman, the Stockton Photo Supply dealer, will enlarge his place of business January 1st. Now only occupies half the store, and on above day will take over the whole place.

Huffert Art Store in Modesto has a pronounced holiday look about it already.

Carl Broden, of Modesto, is already very busy with Christmas photos.

Frank Hanson, one of the leading photographers of Stockton, wears well. Looks as young as when the writer first met him 20 years ago.

Mr. St. Clair, of Ansco fame, was doing the Valley early November.

J. A. G. Brown has taken over the Maxwell and Mudge Studio in Fresno.

Frank Beck, who sold his Fresno studio to Hartsook about a year ago, has opened a new place in the residential district, Blackstone Avenue, same city. Good luck, Frank!

L. M. Powell, of Hanford, just put in some new lighting apparatus.

J. A. G. Brown has taken over the Max-

J. E. Caudell and N. E. Johnson have returned to this city from the Yosemite and Lake Tahoe country with a wonderful collection of new views, which they are selling to the wholesale and retail trade. Caudell and Johnson are opening the Photocraft Studio, 538 Castro Street. This will be fitted up as a commercial and portrait studio, and in connection with it will be a Kodak finishing plant and an art store.

Enrique Mueller

During September last, there passed away in this city Enrique Mueller, aged 75 years. Mr. Mueller will be remembered by many of the older photographers as a specialist in marine photography. So successful was he in this line of work that he achieved national fame. Many of Mr. Mueller's photographs have now proved of real historical value. Among his cherished negatives and prints are pictures of battleships that have seen their day, and were it not for these records would be but a memory.

Enrique Mueller drew to himself many admirers of his photographic skill, and his pleasing personality endeared him to many, and of these there are some left whose heart will go out in sympathy for Mrs. Mueller in her bereavement.

Mrs. Mueller left San Francisco on September 28th for the East, accompanying her husband's remains.

The Howellite Movie Camera

Some photographers are now devoting attention to a movie outfit as part of their equipment. At one time this involved considerable outlay, but manufacturing facilities have greatly reduced the cost of these cameras, and photographers are now able to secure them at a very reasonable price.

To Howell's Cine Equipment Co., Inc., 740-7th Avenue, New York, belongs the credit of introducing a thoroughly practical outfit which will meet the requirements of the up-to-date photographer, and this excellent apparatus sells for the very moderate price of \$100.00. It comes complete with carrying case, four magazines and tripod. The camera capacity is 200 ft.

NOTES AND COMMENTS

of film, and it is fitted with an F. 3.5 anastigmat lens. The usual Howells' guarantee goes with each outfit.

There is hardly a town so small but has its moving picture show, and these theaters are glad to exhibit scenes of local interest if they can secure them. There is not a town but has some special events during the course of the year that are of importance to the community. People love to see themselves in the movies, and this interest will always secure an audience at the local theater, and this makes a demand for the home film which would be difficult to supply in any other way but by the local photographer. The matter of developing and printing these films can be turned over to specialists in the business, whose usual charge is six cents a foot, including the cost of positive stock. If we add the cost of four cents a foot for our negative stock, we find what our total cost will amount to.

A live photographer with an instinct for news will be able to see the possibilities in this for him. He will devise means to add to his business. The work is pleasant, profitable, and as an advertising feature to his regular work it stands unrivaled.

On another page of this issue will be found this company's advertisement. Write for particulars if interested.—(Advt.)

The Pleadwell Enlargements

The merest novice in photography quickly learns that enlargements from the same negative will vary in quality according to the skill of the operator. One man secures so much more out of a negative than does another. The material in most cases being the same, it is evident the artistic quality of the work is wholly dependent on the skill of the worker. The making of enlargements is by no means the mechanical process that one is led to believe; the best results are the product of specialists—invariably.

The Pleadwell Enlarging Service, Erie, Pennsylvania, is a specialists' institution. Patrons expect the better work when placing orders there, and they get—better work. It is this quality that brings the

success this service enjoys. On another page will be found the announcement.—(Advt.)

Rexo Automatic Enlarger

Burke and James have placed upon the market their new automatic enlarger; this promises to have quite a demand on account of its practicability. The new enlarger is constructed to meet the requirements of the photo-finisher and commercial man. It is made for negatives 5 x 7 or smaller, and will make prints by projection from actual size of negative to 4 1-3 diameters—up to 20 x 24 inches.

The Rexo Automatic Enlarger consists of a projection machine placed horizontally on a frame-like table. The lens of this projector is supplied with a prism; this prism deflects the image downwards on to the easel, which operates horizontally and in conjunction with the projector. Thus we have a self-focussing enlarging device.

The picture is always in focus, and the size of the enlarged print may be changed instantly. The easel is equipped with adjustable guides and sliding masks for borders of various widths. Dodging and vignetting can be done with greatest ease. Fitted with adjustable diffusion screen, two negative carriers, one for film and the other for glass. There is also an adjustable ruby shutter for placing the paper and examining the projected image, and a fine focusing lever for special work.

The length of exposure is extremely short. 600 or 1000 Watt Mazda lamp can be used. Exposure on PMC bromide, 1 to 5 seconds; also it is entirely practical to make enlargements on Rexo, Velox, Cyko and similar papers.

The floor space required is only 22x64 inches and the height is 72 inches.

The photographer who is interested in this subject should secure particulars from the manufacturers, Burke & James, Inc., 240 E. Ontario St., Chicago. A cut of this enlarger will be found illustrated in the advertisement on another page of this magazine.—Advertisement.

CAMERA CRAFT

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Camera Craft Publishing Co., Claus Spreckels Bldg., San Francisco, Calif.

Statement of the ownership, management, circulation, etc., required by the Act of Congress of August 24th, 1912, for October 1, 1922, of "Camera Craft," published monthly at San Francisco, State of California, County of San Francisco.

Before me, a Notary Public in and for the State and county aforesaid, personally appeared I. M. Reed, who having been duly sworn according to law, deposes and says that she is the Business Manager of the "Camera Craft" and that the following is, to the best of her knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24th, 1912, embodied in Section 443, Postal Laws and Regulations, printed on the reverse of this form, to-wit:

Publisher, Camera Craft Publishing Company, San Francisco, California; Editors are Dr. H. D'Arcy Power and Edgar Felloes, both of San Francisco, California; Business Manager, I. M. Reed, San Francisco, California. That the owners are Camera Craft Publishing Company, San Francisco, California; Harriette E. Clute, Trustee, Mountain View, California; Romaine F. Clute and Clifford H. Clute, Beneficiaries, Mountain View, California.

That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are none.

That the two paragraphs next above, giving the names of the owners, stockholders and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company, but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association or corporation has any interest, direct or indirect, in the said stock, bonds, or other securities than as so stated by him.

(Signed) I. M. REED, Business Manager.

Sworn and subscribed before me this twenty-ninth day of September, 1922.

SID J. PALMER, Notary Public.

In and for the City and County of San Francisco, State of California. My commission expires December thirty-first, 1922.

